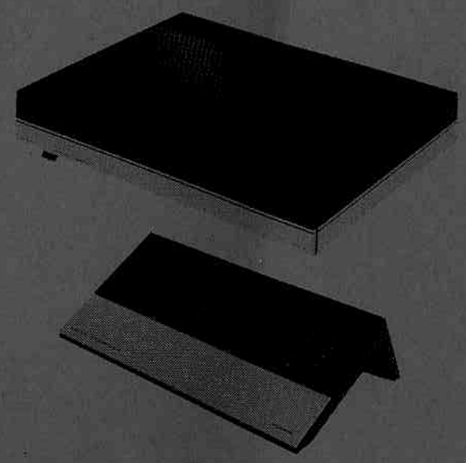
BANG & OLUFSEN
DK – 7600 STRUER
DENMARK

TELEPHONE 97851122*
CABLE ADRESS BANGOLUF
TELEFAX 97853912

3538751 09-89

PRINTED IN DENMARK BY BOGTRYKKERIGÅRDEN A/S, STRUER 09-89

Bang & Olufsen



Beomaster 6500

Type 2336, 2337, 2338, 2339, 2340

Master Control Panel

Type 1551

SERVICEANVISNING
SERVICE MANUAL

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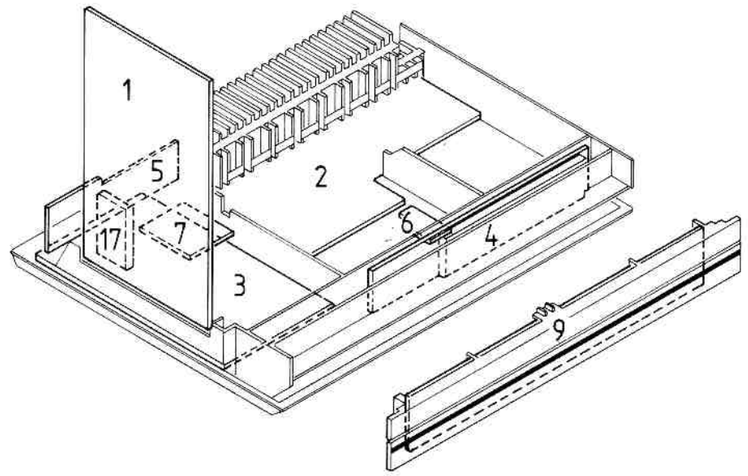
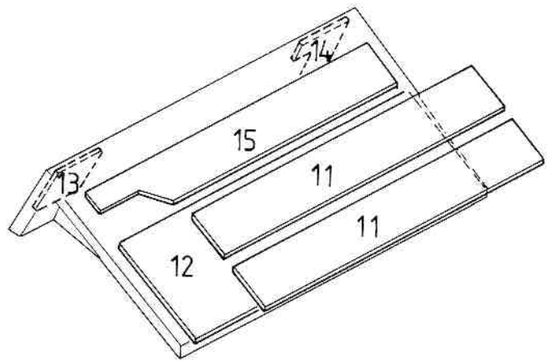




TECHNICAL SPECIFICATIONS

Beomaster 6500	Type 2336, 2337, 2338, 2339, 2340
	Master Control Panel 6500, two-way
	Beolink 7000, two-way
	Beolink 1000, one-way
Long-term max. output power IEC	2 x 110 watts/8 ohms
Total harmonic distortion IHF	<0,09%/50 watts 20-20,000 Hz
Dynamic headroom	1.5 db/8 ohms
Intermodulation IHF	<0.1%
Input sensitivity/impedance:	
Phono	30 mV/100 kohms
Tape - AUX	30 mV/100 kohms
CD player	20 mV/100 kohms
Line	25 mV/100 kohms
Response vs frequency:	
Phono	20-20,000 Hz ±1.5 dB
Tape	20-20,000 Hz ±1.5 dB
Wideband damping factor	50
Signal-to-noise ratio:	
Phono A-weighted, 1 W IHF	>78 dB
Tape A-weighted, 1 W IHF	>80 dB
Tape A-weighted, 50 W output	>97 dB
Channel separation 10,000 Hz	>50 dB
Output:	
Tape	500 mV/1 kohms
Line	500 mV/1 kohms
External power amplifier	1 V/1 kohms
Headphones	Max. 10 V/470 ohms
Bass control at 40 Hz	±10 dB
Treble control at 12,500 Hz	±8 dB
FM tuner section:	
FM range	76-90 MHz (Type 2339)
	87.5-108 MHz (Type 2336, 2337, 2338, 2340
FM aerial impedance	75 and 240 ohms
Usable sensitivity mono	14 dBf-1.4 µV/75 ohms
Usable sensitivity stereo	19 dBf-2.5 µVV/75 ohms
50 dB quiting sensitivity mono	19 dBf-2.5 µV/75 ohms
50 dB quiting sensitivity stereo	40 dBf-28 µV/75 ohms
Signal-to-noise ratio 65 dBf mono	75 dB
Signal-to-noise ratio 65 dBf stereo	70 dB
Frequency response	20-15,000 Hz ±1 db
Distortion at 65 dBf mono	0.16%
Distortion at 65 dBf stereo	0.2%
Intermodulation mono	0.1%
Intermodulation stereo	0.1%
Capture ratio	1.7 dB
Adjacent channel selectivity	10 dB
Alternate channel selectivity	70 dB
Spurious response	100 dB
Image response ratio	80 dB
IF response ratio	120 dB

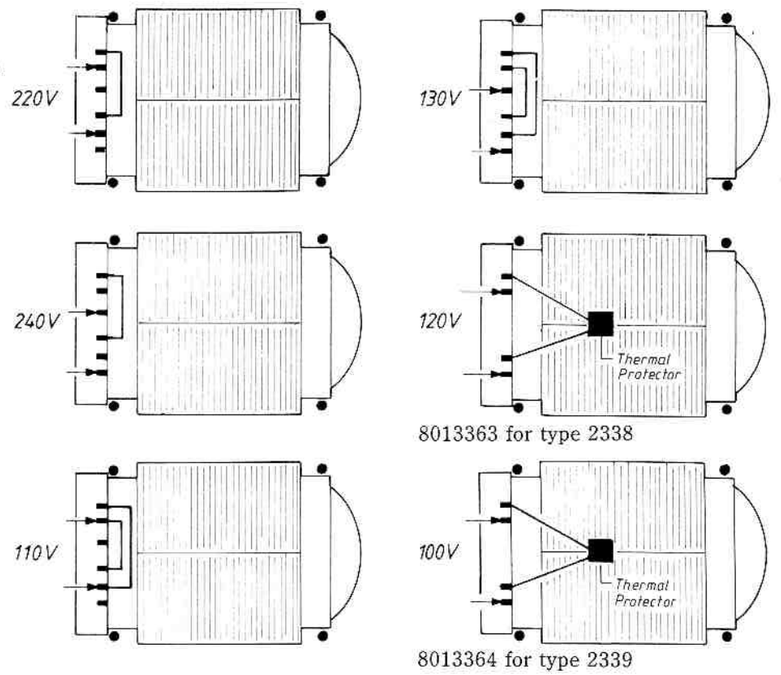
AM suppression	57 dB
Stereo channel separation	45 dB
Subcarrier product rejection	70 dB
AM tuner section:	
LW range	150-350 kHz (Type 2336, 2337)
MW range	520-1610 kHz (Type 2336, 2337, 2338, 2339, 2340)
LW sensitivity 20 dB S/N ratio	80 µV
MW sensitivity 20 dB S/N ratio	60 µV
Connections:	
Audio Link	CD, Tape 1, Tape 2, PH (RIAA in Beogram 6500)
Audio Aux Link	Beovision, 7 pin
Power Link	Beolab speakers, 2 sockets 8-pin
Speaker Link	Beovox speakers, 2 sockets 4-pin
Master Control Link	2 sockets 3-pin
Power supply	Type 2336 220 V
	Type 2337 240 V
	Type 2338 120 V
	Type 2339 100 V
	Type 2340 240 V
Power frequency	50-60 Hz
Power consumption	Max. 225 watts
Dimensions W x H x D	42 x 7.5 x 32.5
Weight	8.5 kg
	18.8 lbs

Installationskit:

RIAA amplifier	8001245

Subject to change without notice

Tilslutning af nettransformer/ Connection of Mains Transformer/



8013363 for type 2338

8013364 for type 2339

Options:

En Beomaster i et Beolinksystem

Options eller situationer beskriver hvordan både audio- og videoprodukterne i et Beolinksystem skal programmeres i den valgte stilling.

Option 1 (Situation 1):

Et audio- og et videosystem placeres i samme rum, så signalerne fra Beolink terminalen kan opfanges af begge systemer samtidigt.

Option 2:

Audio- og videosystemet er placeret i hver sit rum, så signalerne fra Beolink terminalen kun kan opfanges af ét system ad gangen.

Beomaster 6500 i Master Control Link 2-systemet:

Option 3:

Anvendes når der er to audiokilder i samme rum (f.eks.: en MCL 2-enhed og en Beomaster 6500).

Option 4:

Anvendes når der er to audio- og en videokilde i samme rum (f.eks.: MCL 2, Beomaster og Beovision).

Option 0:

Sætter IR-føler ud af funktion, hvilket kan udnyttes f.eks. i butiksvinduer eller ved udstillinger. Der kan dog stadig vælges ny option med Beolink terminalen.

Programmering:

Options programmeres med Beolink terminalen, med Beomaster 6500 i standby:

Tast: SOUND, Option nr. STORE
Display viser: Option nr.

Beomaster 6500 er fra fabrikken programmeret til option 1.

Stikdåserne Line in/out og AUX/TV:

Line in/out anvendes ved tilslutning af en equalizer. Husk kortslutningsprop (bestillingsnr. 7220265) når equalizer ikke er tilsluttet.
AUX/TV anvendes ved tilslutning af et Beolink-kompatibelt fjernsyn eller f.eks. Bang & Olufsen båndoptager.

Options:

A Beomaster in a Beolink System

Options or situations describe how both the audio and video products in a Beolink system are programmed in the chosen setting.

Option 1 (Situation 1):

An audio and a video system are placed in the same room so the signals from Beolink terminal can be received by both systems at the same time.

Option 2:

The audio and video systems are placed in separate rooms so the signals from Beolink terminal can only be received by one system at a time.

Beomaster 6500 in the Master Control Link 2 system:

Option 3:

Is used when there are two audio sources in the same room (e.g. an MCL 2 unit and a Beomaster 6500).

Option 4:

Is used when there are two audio sources and one video source in the same room (e.g. MCL 2, Beomaster and Beovision).

Option 0:

Puts the IR sensor out of operation; this can be used in shop windows or at exhibitions for example. However, new options can still be selected with Beolink terminalen.

Programming:

Options are programmed with Beolink terminal, with Beomaster 6500 in standby:

Key: SOUND, Option no. STORE
Display shows Option no.

Beomaster 6500 is programmed at the factory to option 1.

The Line in/out and AUX/TV sockets:

Line in/out is used for connecting an equalizer. Remember short-circuiting fuse (order no. 7220265) when the equalizer is not connected.
AUX/TV is used for connecting a Beolink-compatible television or e.g. Bang & Olufsen cassette recorder.

DIAGRAMFORKLARING

På diagrammerne er der angivet typenumre på transistorer og IC'er. Hvis positionsnummeret er efterfulgt af en stjerne, skal reservedelsnummeret altid benyttes, da denne komponent er specielt udvalgt, f.eks. TR102*.

Positionsnummeret for udgangsforstærkerens venstre kanal er angivet i paranteser i diagrammet for højre kanal.

Komponenttryk og koordinatsystem

De største printplader er forsynet med komponenttryk og et koordinatsystem på både print- og komponentside.
På diagrammerne er enhver komponent forsynet med et koordinatnummer. Dette fortæller i hvilket koordinat på printpladen, komponenten er placeret. Koordinatnumrene er angivet med mindre skrifttype end positionsnumrene.

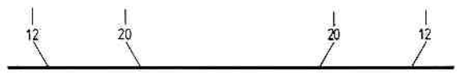
Styrekredsløb

I visse styrekredsløb er den aktive tilstand angivet med en funktions- eller bogstavsangivelse. Denne kan eksempelvis være $\overline{\text{ST.BY.}}$ = »low« i stand-by-stilling eller ST.BY. = »high« i stand-by-stilling.

Ledningsforbindelser

Ledningsforbindelserne på diagrammerne er samlet i »bundter«. De enkelte ledninger er forsynet med en af følgende koder:

INTERN FORBINDELSE PÅ EN DIAGRAMSIDE



Interne forbindelser på en diagramside angives med et tal. Knækket på ledningen viser, i hvilken retning, den anden ende af ledningen findes.

FORBINDELSE TIL EN ANDEN DIAGRAMSIDE

Forbindelsen til en anden diagramside angives med et tal samt et bogstav for det diagram, forbindelsen går til.

EXPLANATION OF DIAGRAM

Type numbers of transistors and ICs are indicated on the diagrams.
If the position number is followed by an asterisk the spare part number must always be used because the component in question has been specially selected, e.g. TR102*.

The position number for the left channel of the output amplifier are stated in brackets in the diagram for right channel.

Component print and coordinate system

The largest PCBs have component prints and a coordinate system on both the print and the component side.
On the diagrams every component has a coordinate number. This indicates in which coordinate on the PCB the component is situated. The coordinate numbers are written in smaller print types than the position numbers.

Control Circuit

In certain control circuits the active mode is indicated by a function term or by an abbreviation. This may be e.g. $\overline{\text{ST.BY.}}$ = low in the stand-by mode or ST.BY. = high in the stand-by mode.

Wiring Connections

The wiring connections on the diagrams are assembled in 'bundles'. The individual wires are provided with one of the following codes:

INTERNAL CONNECTION ON ONE DIAGRAM PAGE

Internal connections on a diagram page are indicated by a number. The bend of the wire indicates in which direction the other end of the wire is found.

CONNECTION TO ANOTHER DIAGRAM PAGE

A connection to another diagram page is indicated by a number as well as by a letter of the diagram to which the connection leads.

Forsyningsspændinger

Alle forsyningsspændinger i diagrammerne er angivet med en pil og en spændingsangivelse.

Eksempel:
Ved siden af spændingsangivelsen står der f.eks. 7 CON. Dette betyder, at den pågældende forsyningsspænding går til 7 steder på den pågældende diagramside (7 CON. = 7 connections).

Supply Voltages

All supply voltages in the diagrams are indicated by an arrow and a voltage indication.

Example:
"7 CON.". This means that the supply voltage in question goes to 7 different places on the diagram page in question (7 CON. = 7 connections).

SYMBOL FOR SIKKERHEDSKOMPONENTER

SYMBOL OF SAFETY COMPONENTS

Ved udskiftning af komponenter med dette symbol skal der anvendes komponenter med samme reservedelsnummer. Den nye komponent skal monteres på samme måde som den udskiftede.

When replacing components with this symbol, components with identical part numbers must be used. The new component must be mounted in the same way as the one replaced.

MÅLEBETINGELSER

Alle DC-spændinger er målt i forhold til stel med et voltmeter med en indgangsimpedans på 10 Mohm.

DC-spændingerne er opgivet i volt (V), f.eks. 0,7 V.

Alle oscillogrammer og AC-spændinger er målt i forhold til stel med et oscilloskop eller et voltmeter med en indgangsmodstand på 1 Mohm.

AC-spændingerne er opgivet i millivolt (mV), f.eks. 660 mV.

MEASURING CONDITIONS

All DC voltages have been measured in relation to ground with a voltmeter with an input impedance of 10 Mohms.

The DC voltages are stated in volts (V), e.g. 0.7 V.

All oscillograms and AC voltages have been measured in relation to ground with an oscilloscope or a voltmeter with an input resistance of 1 Mohm.

AC voltages are stated in millivolts (mV), e.g. 660 mV.

Type 2338 Explanation of the fuse symbols used in the set.
Explanation de symboles du fusible utilisés dans l'appareil

Replace with same type 5 ampere 250 volts slow acting fuse.
Remplacer par un fusible de meme type retardè et de 5 amperes 250 volts.

ADVARSEL!
LITHIUMBATTERI – EKSPLOSIONSFARE
UDSKIFTNING MÅ KUN FORETAGES AF EN SAGKYNDIG OG SOM BESKREVET I SERVICE MANUAL
WARNING!
LITHIUM BATTERY – RISK OF EXPLOSION
TO BE REPLACED BY QUALIFIED SERVICEMAN ONLY AND AS DESCRIBED IN THE SERVICE MANUAL

ADVARSEL VED LITHIUM-BATTERIER

Kortslutning og overopladning af visse typer lithium-batterier kan medføre en voldsom eksplosion.

Ved udskiftning af lithium-batteriet i dette apparat må der kun anvendes et batteri af det fabrikat og den type, der er angivet i denne serviceanvisning (se side 4-5).

Batteriet skal monteres nøjagtigt som det originale batteri.

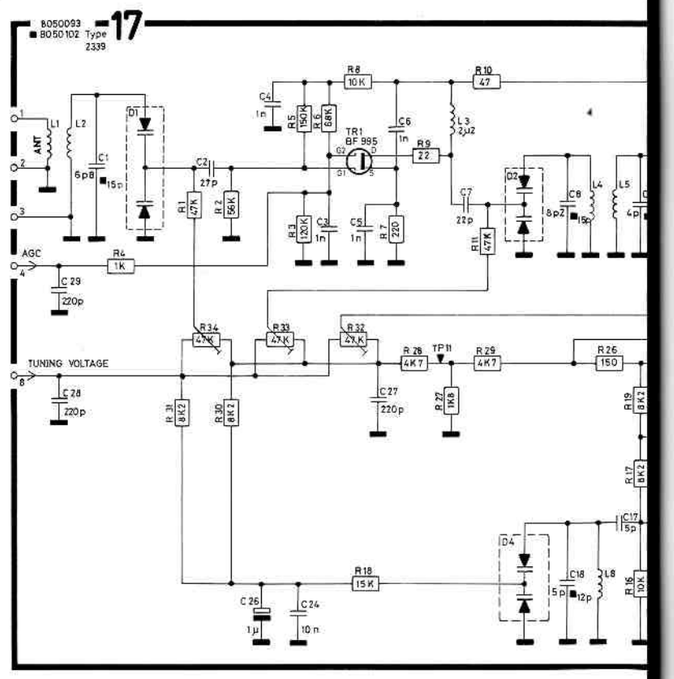
WARNING LITHIUM BATTERIES

Short-circuit and overcharging of some types of lithium batteries may result in a violent explosion.

When replacing the lithium battery in this set, use only batteries of the make and type mentioned in this service manual (see page 4-5).

Fit the battery exactly like the old one.

FM TUNER



1-7

1-7

ADVARSEL!
LITHIUMBATTERI – EKSPLOSIONSFARE
UDSKIFTNING MÅ KUN FORETAGES AF EN SAGKYNDIG
OG SOM BESKREVET I SERVICE MANUAL
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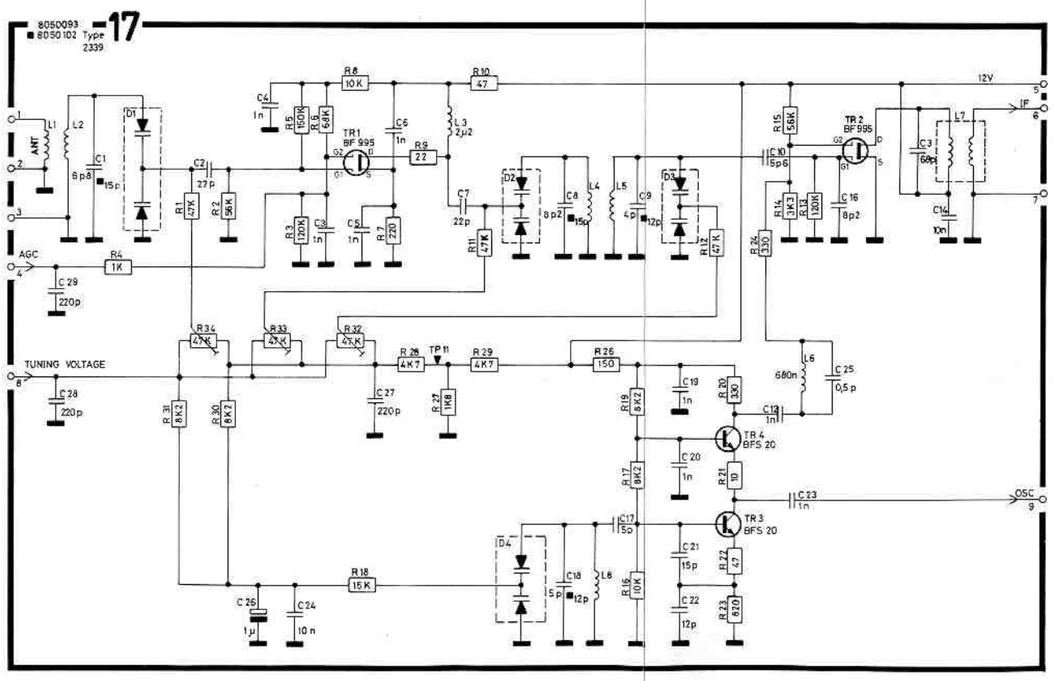


The FM TUNER is a single unit.
With failure in this unit we recommend replacing the Whole unit.
However the part nos. of semi-conductors are in the lidt of semi-conductors.

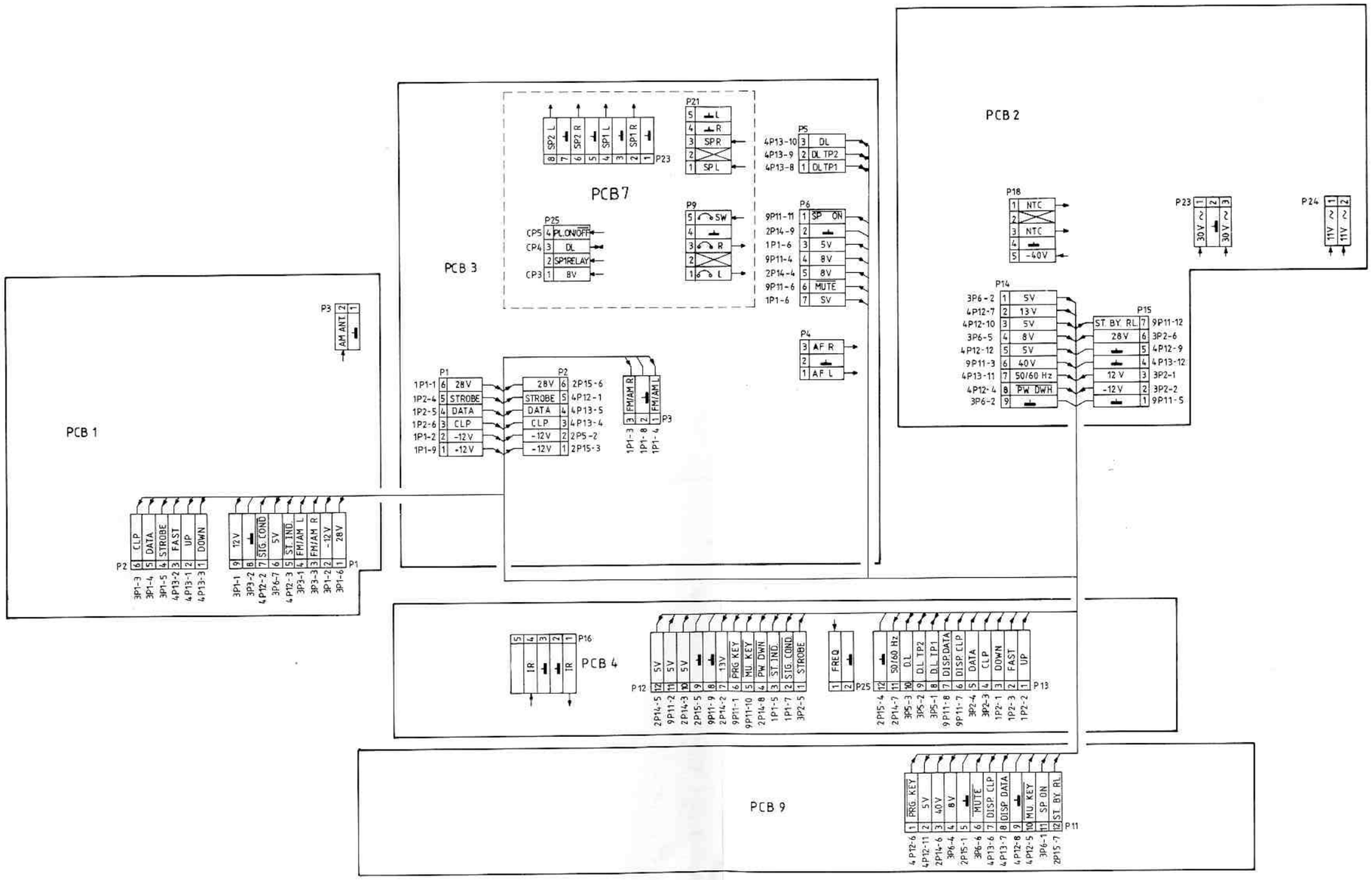

PCB 1
PCB 2
PCB 3
PCB 4
PCB 7
PCB 9
P1
P2
P3
P4
P5
P6
P9
P12
P13
P14
P15
P16
P18
P21
P23
P24
P25
AM ANT
SP2 L
SP2 R
SP1 L
SP1 R
SP L
SP R
DL
DL TP2
DL TP1
SP ON
MUTE
SW
R
L
PL ON/OFF
SP1RELAY
8V
28V
STROBE
DATA
CLP
-12V
+12V
FM/AM R
FM/AM L
5V
13V
40V
50/60 Hz
PW DWN
ST IND.
SIG.COND
PRG KEY
MU KEY
DISP CLP
DISP DATA
FAST
UP
DOWN
ST BY RL
SP ON
FREQ
NTC
-40V
12 V
-12 V
30V ~
11V ~

DIAGRAM A AM-FM, TUNER, IF, STEREO DECODER (Type 2338, 2339, 2340)

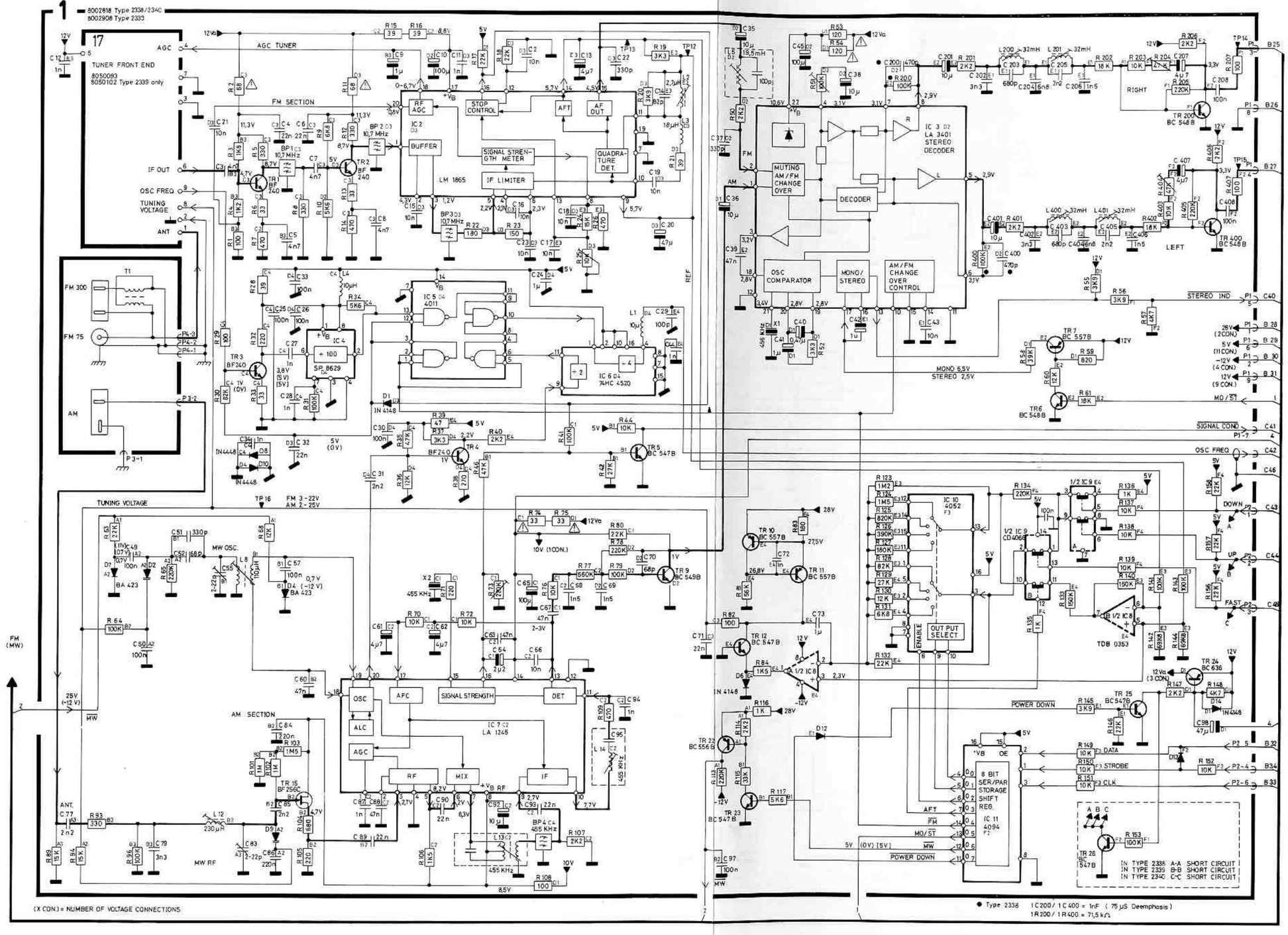


DIAGRAM A AM-FM, TUNER, IF, STEREO DECODER (Type 2336, 2337)

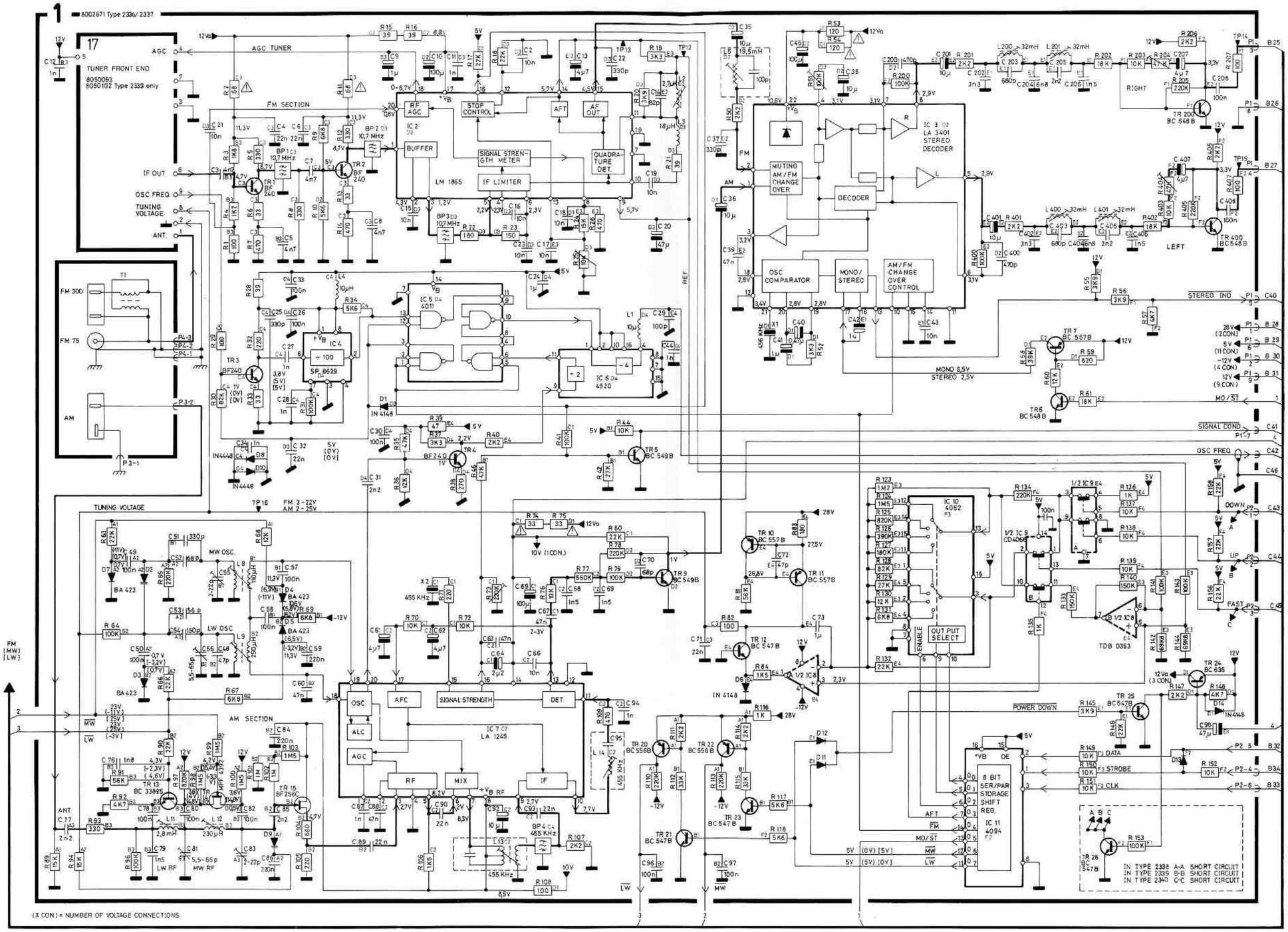


DIAGRAM B RIAA AMPL., INPUT SELECT, VOLUME AND TONE CONTROL, OUTPUT AMPL., POWER SUPPLY

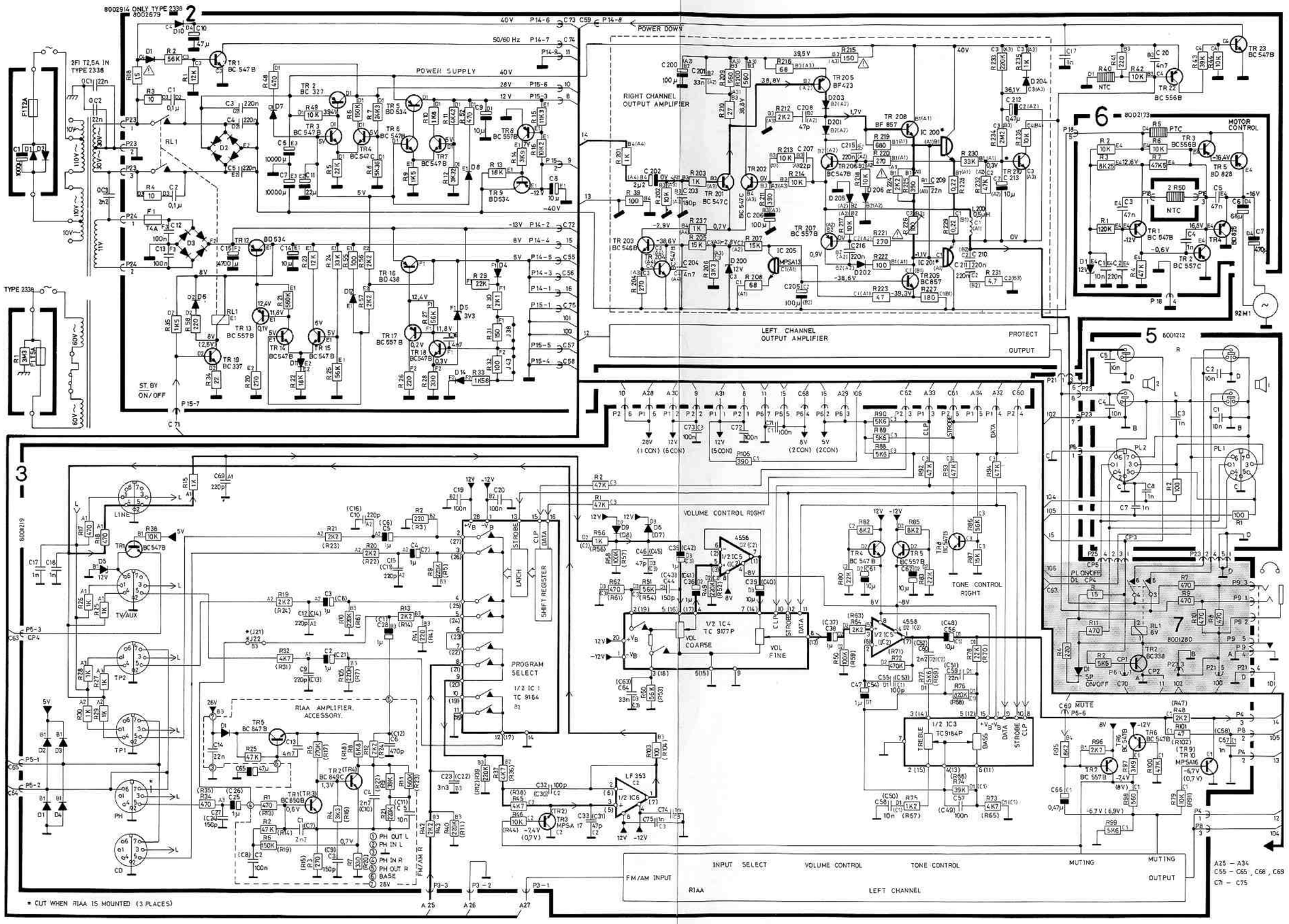


DIAGRAM C MICROCOMPUTER, IR TRANSCEIVER, DISPLAY

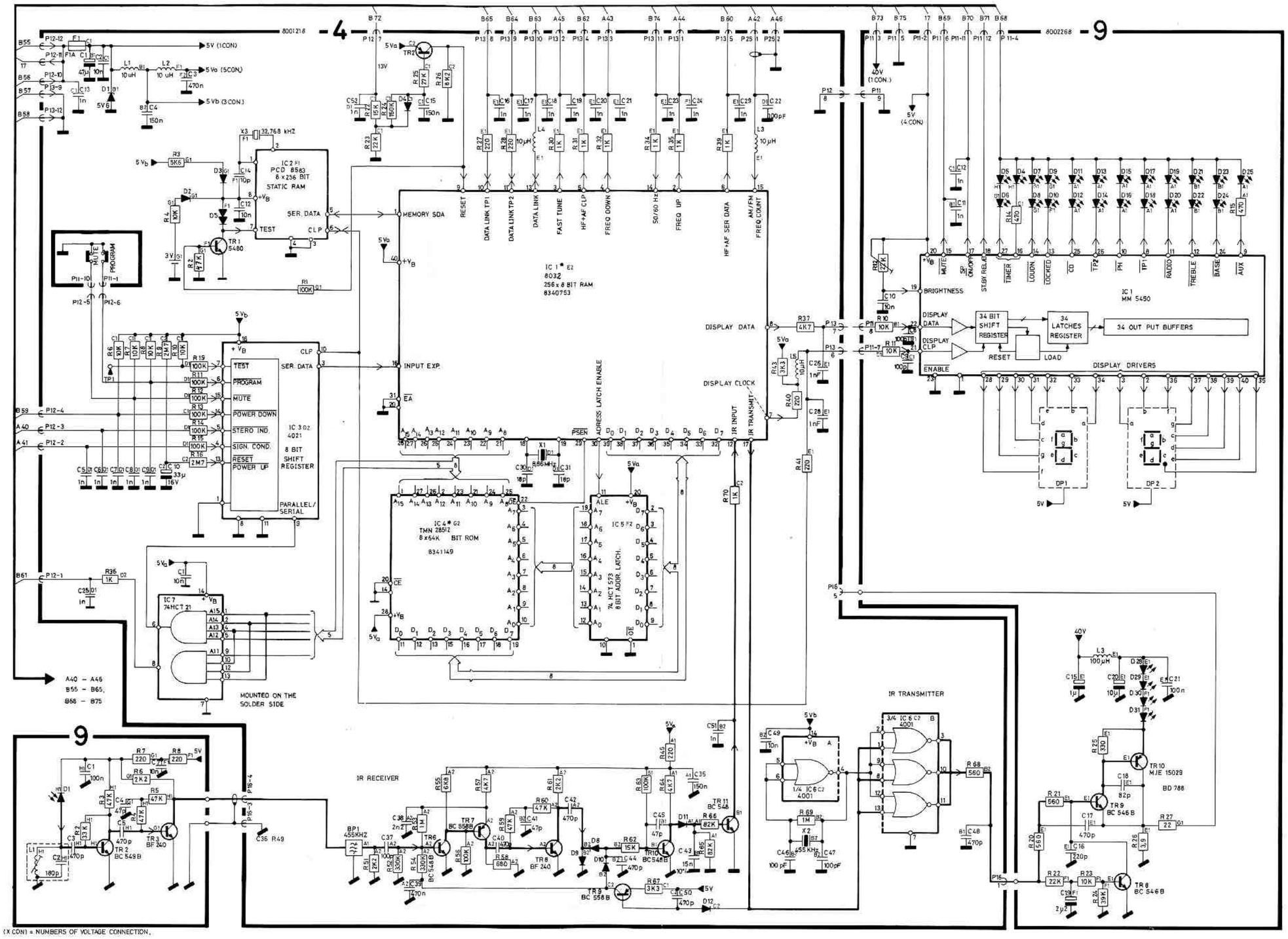
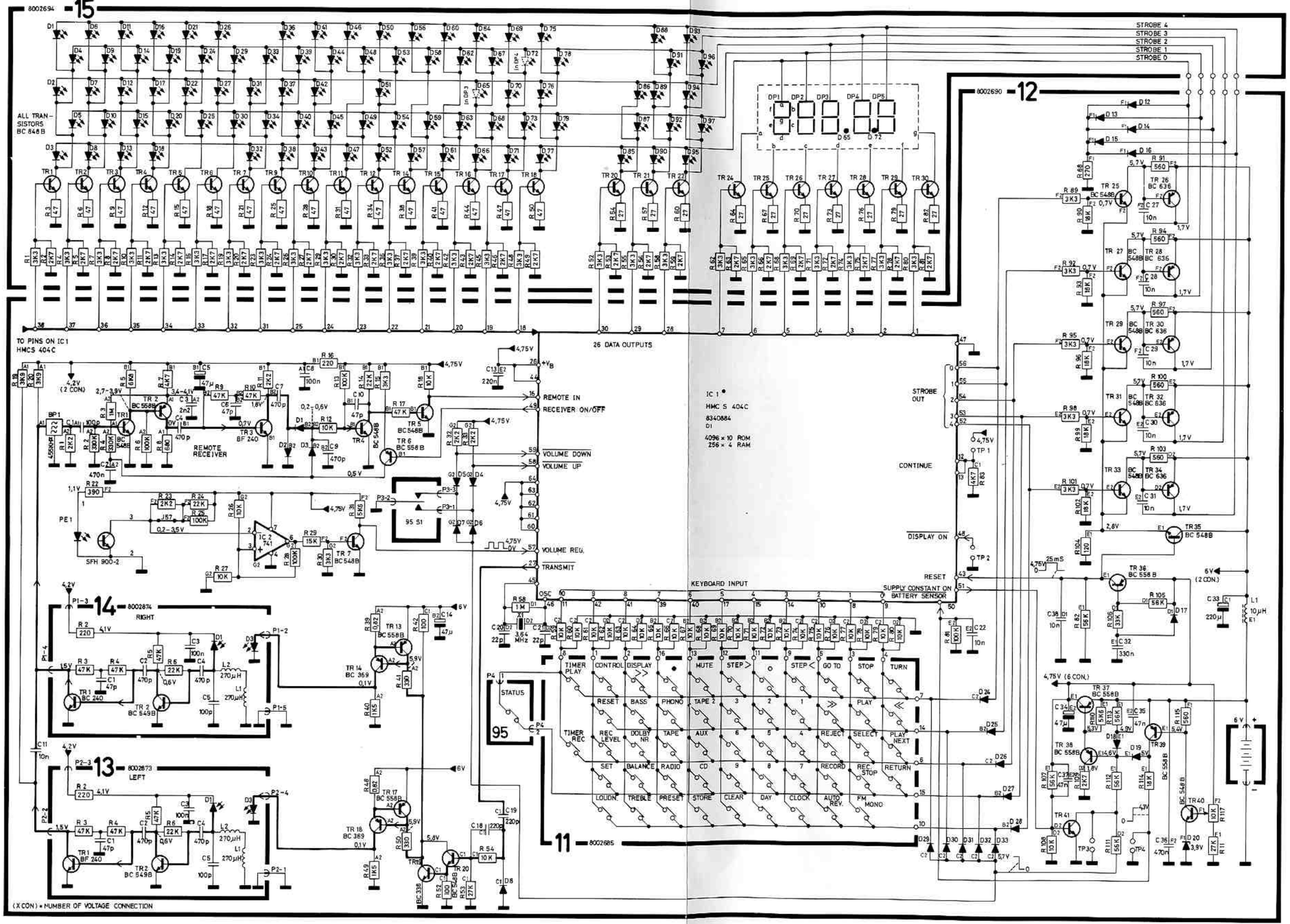
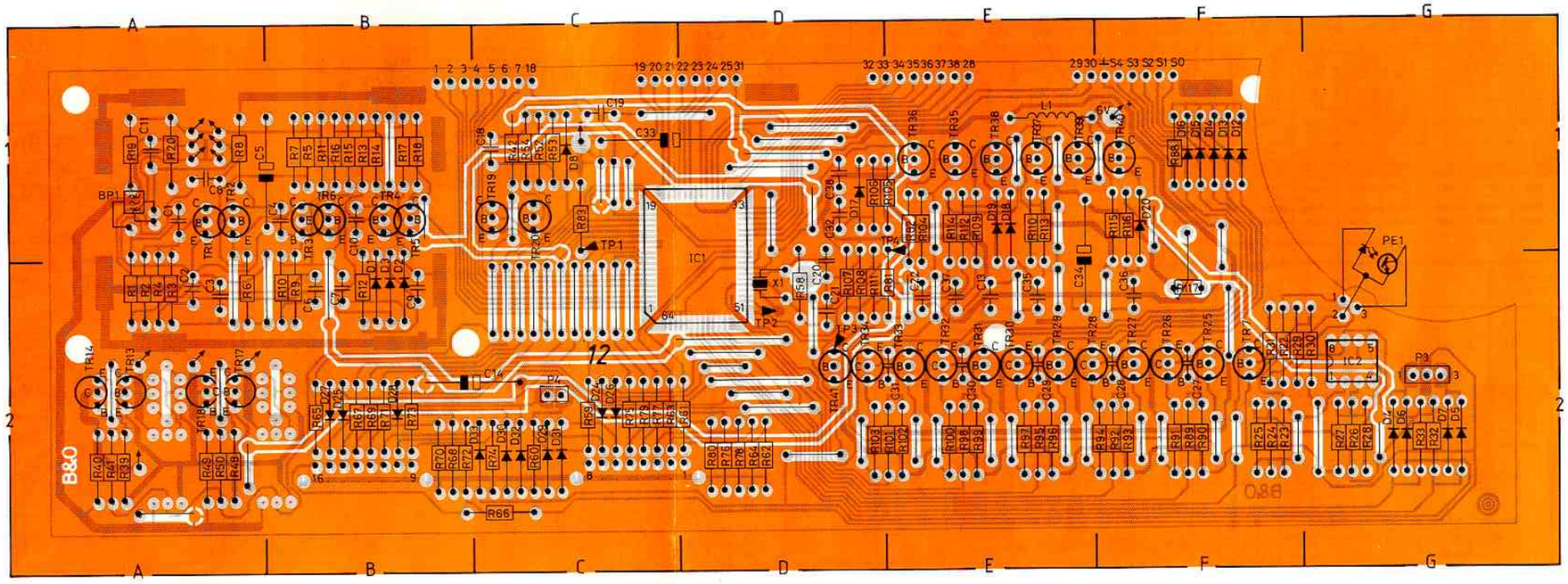


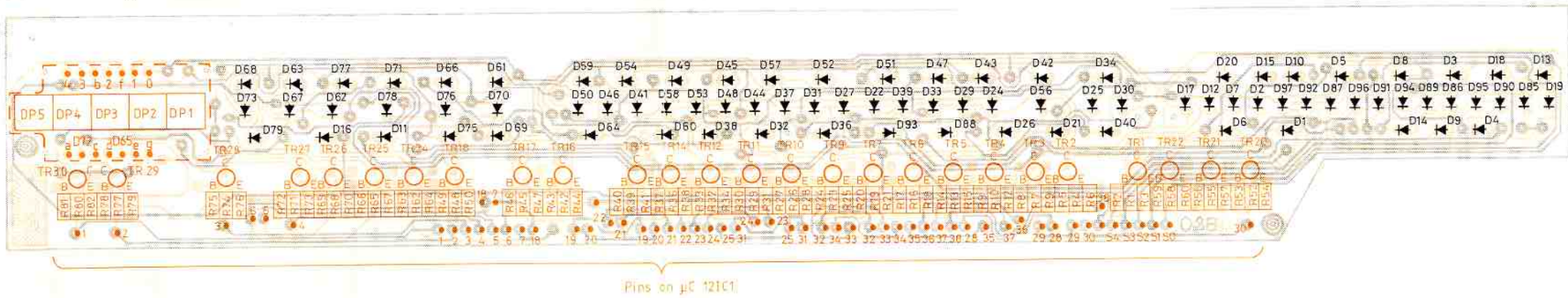
DIAGRAM D MASTER CONTROL PANEL, TYPE 1551



Microcomputer
8002690 PCB 12



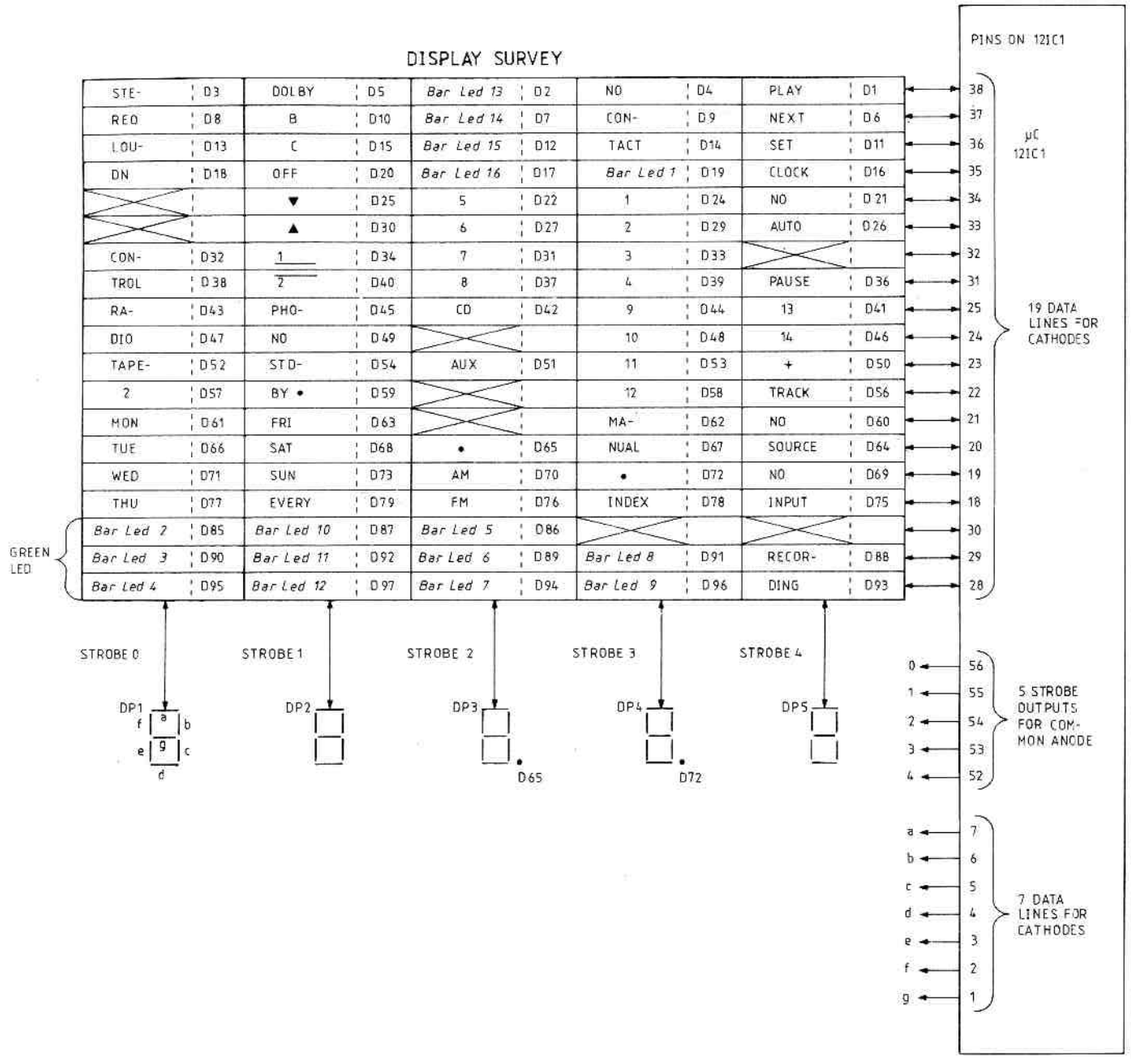
Display
8002694, PCB 15



DISPLAY SURVEY FOR PCB 15
IN MASTER CONTROL PANEL

DISPLAY SURVEY

STE-	D3	DOLBY	D5	*Bar Led 13*	D2	NO	D4	PLAY	D1
REQ	D8	B	D10	*Bar Led 14*	D7	CON-	D9	NEXT	D6
LOU-	D13	C	D15	*Bar Led 15*	D12	TACT	D14	SET	D11
DN	D18	OFF	D20	*Bar Led 16*	D17	*Bar Led 1*	D19	CLOCK	D16
		▼	D25	5	D22	1	D24	NO	D21
		▲	D30	6	D27	2	D29	AUTO	D26
CON-	D32	1	D34	7	D31	3	D33		
TROL	D38	2	D40	8	D37	4	D39	PAUSE	D36
RA-	D43	PHO-	D45	CD	D42	9	D44	13	D41
DIO	D47	NO	D49			10	D48	14	D46
TAPE-	D52	STD-	D54	AUX	D51	11	D53	+	D50
2	D57	BY •	D59			12	D58	TRACK	D56
MON	D61	FRI	D63			MA-	D62	NO	D60
TUE	D66	SAT	D68	•	D65	NUAL	D67	SOURCE	D64
WED	D71	SUN	D73	AM	D70	•	D72	NO	D69
THU	D77	EVERY	D79	FM	D76	INDEX	D78	INPUT	D75
Bar Led 2	D85	*Bar Led 10*	D87	*Bar Led 5*	D86				
Bar Led 3	D90	*Bar Led 11*	D92	*Bar Led 6*	D89	*Bar Led 8*	D91	RECOR-	D88
Bar Led 4	D95	*Bar Led 12*	D97	*Bar Led 7*	D94	*Bar Led 9*	D96	DING	D93



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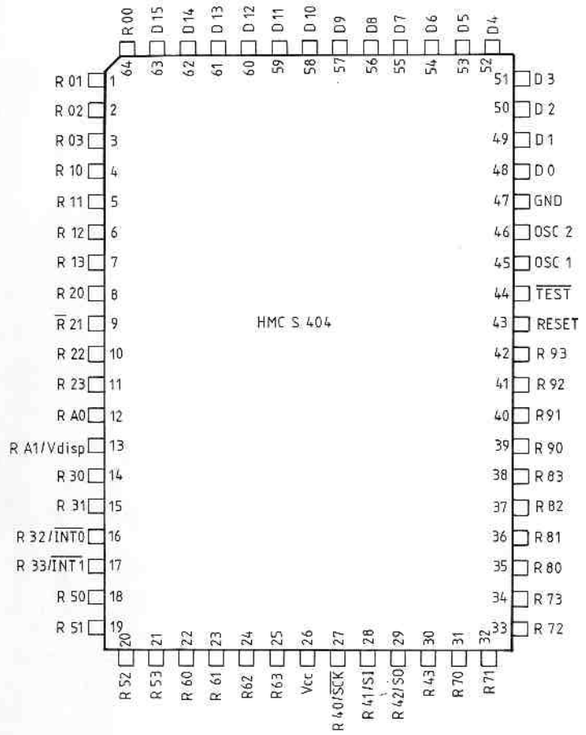
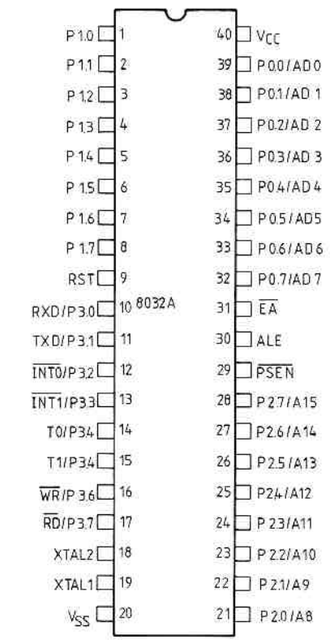
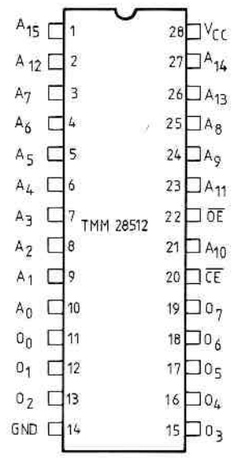


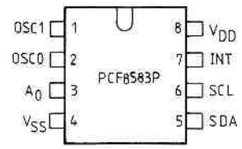
4IC1



4IC4



4IC2



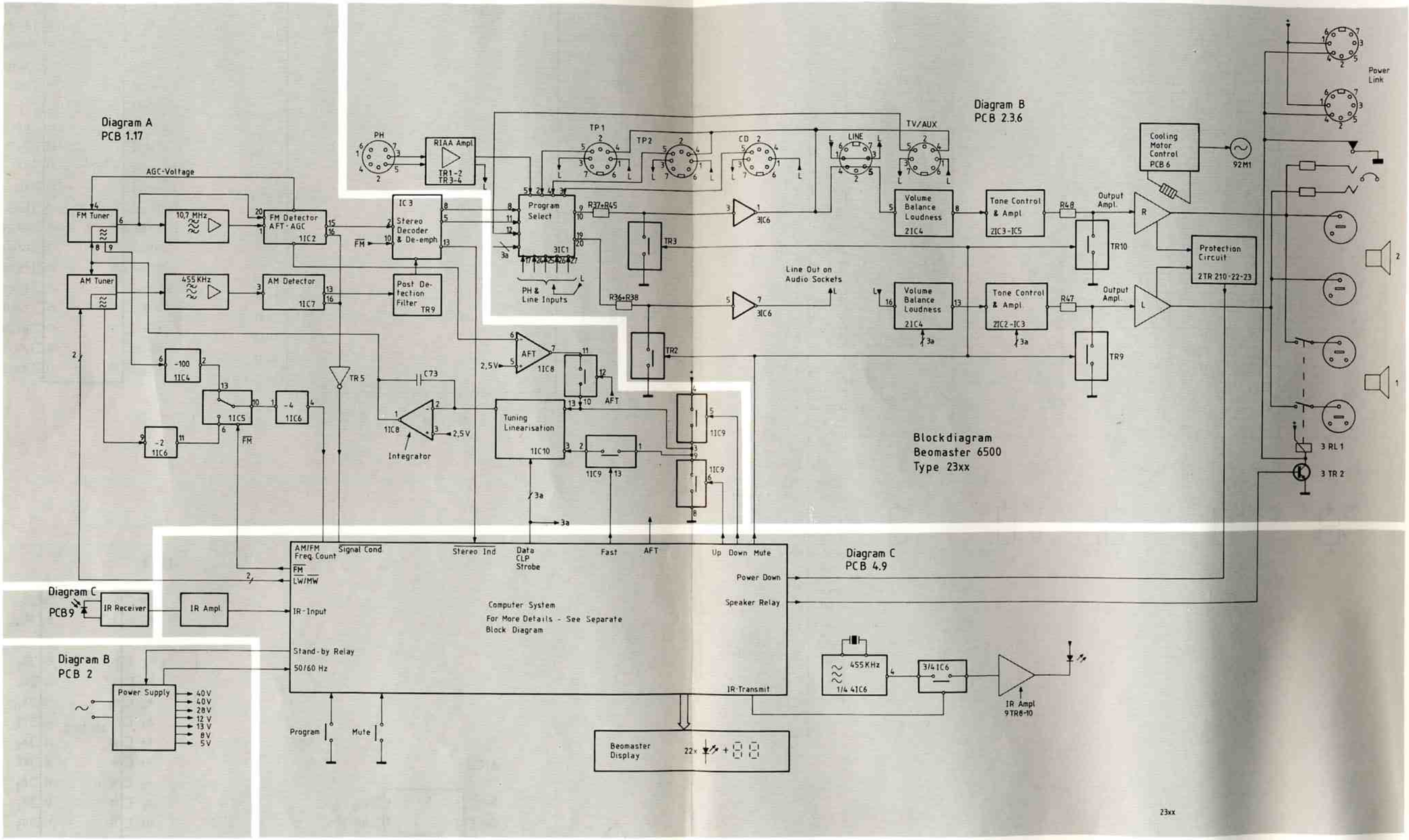
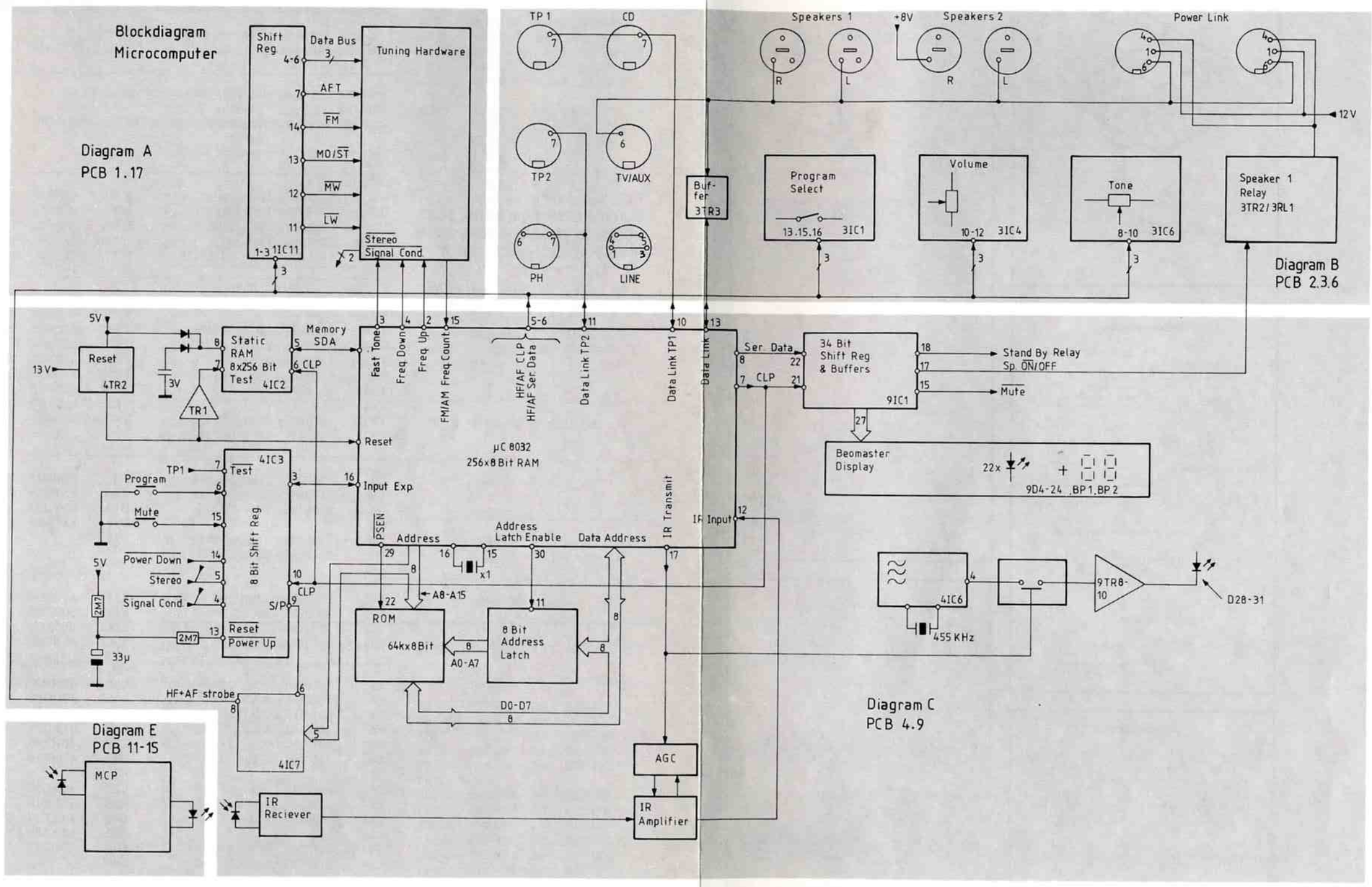


Diagram A
PCB 1.17
Diagram B
PCB 2.3.6
Diagram C
PCB 4.9
Diagram C
PCB 9
Diagram B
PCB 2
PH
RIAA Ampl
TR1-2
TR3-4
TP1
TP2
CD
LINE
TV/AUX
AGC-Voltage
FM Tuner
10,7 MHz
FM Detector
AFT - AGC
1IC2
IC 3
Stereo
Decoder
& De-emph
Program
Select
3IC1
R37+R45
3IC6
Volume
Balance
Loudness
2IC4
Tone Control
& Ampl
2IC3-IC5
R48
Output
Ampl.
Cooling
Motor
Control
PCB 6
92M1
Power
Link
Protection
Circuit
2TR 210-22-23
TR10
TR3
AM Tuner
455 KHz
AM Detector
1IC7
Post De-
tection
Filter
TR9
PH &
Line Inputs
R36+R38
Line Out on
Audio Sockets
2IC2-IC3
R47
TR2
AFT
1IC8
2,5V
-100
1IC4
-4
1IC5
1IC6
-2
1IC6
TR5
C73
Integrator
Tuning
Linearisation
1IC10
1IC9
3 RL 1
3 TR 2
Blockdiagram
Beomaster 6500
Type 23xx
AM/FM
Freq. Count
Signal Cond
Stereo Ind
Data
CLP
Strobe
Fast
AFT
Up
Down
Mute
FM
LW/MW
IR-Input
Stand-by Relay
50/60 Hz
Computer System
For More Details - See Separate
Block Diagram
Power Down
Speaker Relay
IR-Transmit
IR Receiver
IR Ampl
Power Supply
40 V
40 V
28 V
12 V
13 V
8 V
5 V
Program
Mute
Beomaster
Display
22x
455 KHz
1/4 4IC6
3/4 IC6
IR Ampl
9TR8-10
23xx

2-10

2-10

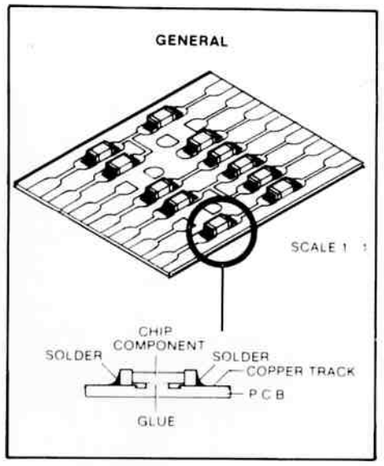
BLOCK DIAGRAM

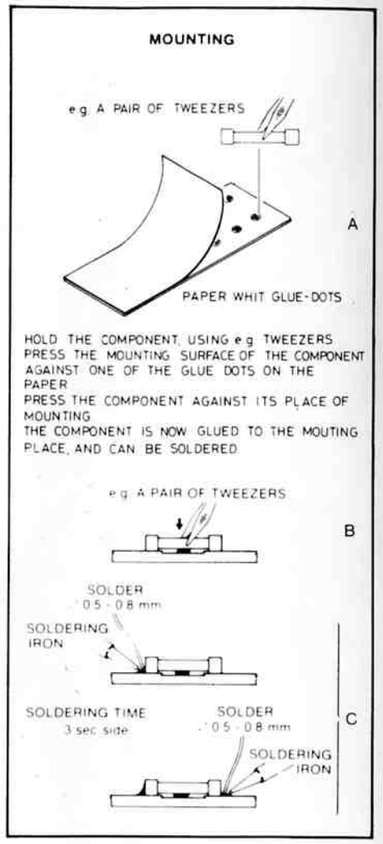


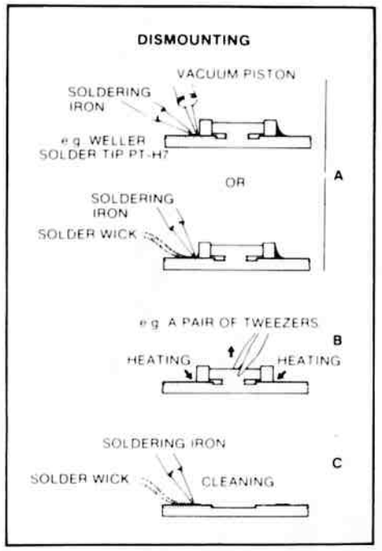
3-1

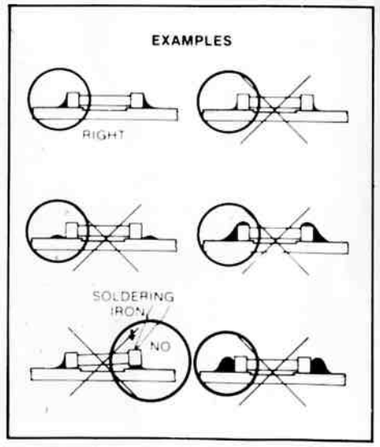
LIST OF ELECTRICAL PARTS

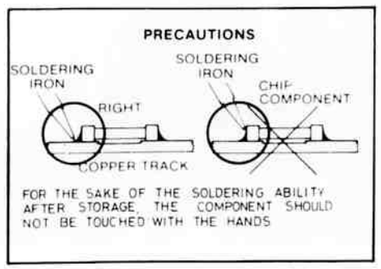
In the player chip components have been applied. For insertion and removal of chip components see the figure below.



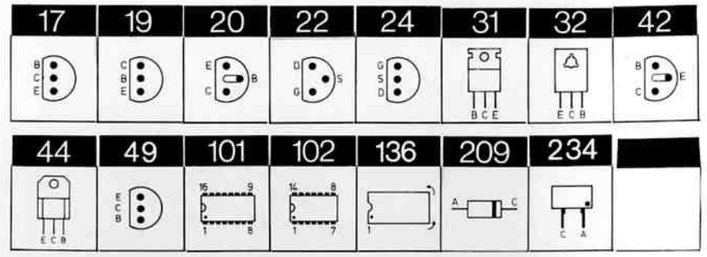

MOUNTING
e.g. A PAIR OF TWEEZERS
A
PAPER WHIT GLUE-DOTS
HOLD THE COMPONENT, USING e.g. TWEEZERS
PRESS THE MOUNTING SURFACE OF THE COMPONENT AGAINST ONE OF THE GLUE DOTS ON THE PAPER
PRESS THE COMPONENT AGAINST ITS PLACE OF MOUNTING
THE COMPONENT IS NOW GLUED TO THE MOUTING PLACE, AND CAN BE SOLDERED
e.g. A PAIR OF TWEEZERS
B
SOLDER
0.5 - 0.8 mm
SOLDERING IRON
SOLDERING TIME
3 sec side
SOLDER
0.5 - 0.8 mm
SOLDERING IRON
C






PRECAUTIONS
SOLDERING IRON
RIGHT
SOLDERING IRON
CHIP COMPONENT
COPPER TRACK
FOR THE SAKE OF THE SOLDERING ABILITY AFTER STORAGE, THE COMPONENT SHOULD NOT BE TOUCHED WITH THE HANDS

LIST OF ELECTRICAL PARTS



Resistors not referred to are standard, see page 3-8

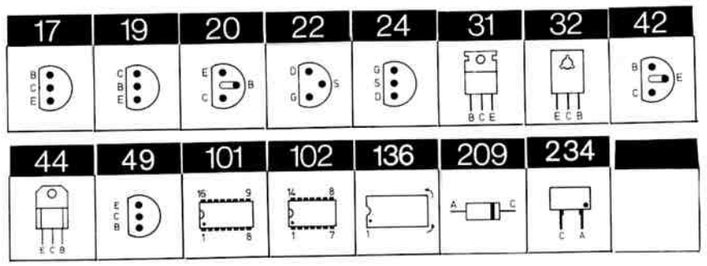
Δ indicates that static electricity may destroy the component.

* Specially selected or adapted sample.

PCB 1,
8002671 HF, type 2336, 2337
8002818 HF, type 2338, 2340
8002908 HF, type 2339

IC2	8340756	**136**	LM1865	IC7	8340757	**136**	LA1245
IC3	8340758	**136**	LA3401	IC8	8340763	**136**	LF353
IC4	8340492	**102**	SP8629	IC9Δ	8340202	**102**	4066
IC5Δ	8340245	**102**	4011	IC10Δ	8340602	**101**	4052
IC6Δ	8341102	**101**	74HC4520	IC11Δ	8340782	**136**	4094
TR1-TR4	8320625	**42**	BF240	TR14*Δ	8320396	**24**	MPF4392
				TR15Δ	8320535	**22**	BF256C
TR5	8320497	**20**	BC547B	TR20	8320521	**20**	BC556B
TR6	8320509	**20**	BC548B	TR21	8320497	**20**	BC547B
TR7	8320503	**20**	BC557B	TR22	8320521	**20**	BC556B
TR9	8320627	**20**	BC549B	TR23	8320497	**20**	BC547B
TR10-TR11	8320503	**20**	BC557B	TR24	8320640	**17**	BC636
				TR25	8320497	**20**	BC547B
TR12	8320497	**20**	BC547B	TR200	8320509	**20**	BC548B
TR13	8320512	**20**	BC338-25				
D1	8300058	**209**	1N4148	D8	8300212	**209**	75V 0,2A
D2	8300568	**234**	SVc333C	D9	8300568	**234**	SVc333C
D3-D5	8300385	**209**	BA423	D10	8300212	**209**	75V 0,2A
				D11-D14	8300058	**209**	1N4148
D6	8300058	**209**	1N4148				
D7	8300385	**209**	BA423				
R25	5370326	10kΩ 20% 0,1W		R142	5020336	69,8kΩ 1% 1/4W	
R51	5370128	100kΩ 20% 0,1W		R143	5020263	100kΩ 1% 1/4W	
R73	5370330	220kΩ 20% 0,1W		R144	5020336	69,8kΩ 1% 1/4W	
R141	5020263	100kΩ 1% 1/4W		R204	5370328	47kΩ 20% 0,1W	
C2	4010106	10nF -20+80% 40V		C30	4130230	100nF 20% 63V	
C3	4010101	4,7nF 10% 63V		C31	4010103	2,2nF 10% 63V	
C4	4010107	22nF -20+80% 40V		C32	4010107	22nF -20+80% 40V	
C5	4010101	4,7nF 10% 63V		C33	4130179	100nF 20% 63V	
C6	4010107	22nF -20+80% 40V		C34	4010105	1nF 10% 63V	
C7-C8	4010101	4,7nF 10% 63V		C35-C36	4200510	10µF 20% 16V	
C9	4200512	1µF 20% 50V		C37	4010118	330pF 10% 63V	
C10	4200129	100µF -20+50% 16V		C38	4200510	10µF 20% 16V	
C11-C12	4010105	1nF 10% 63V		C39	4030023	47nF -20+80% 16V	
				C40	4200523	0,47µF 20% 50V	
C13	4200515	4,7µF 20% 25V		C41-C42	4200512	1µF 20% 50V	
C14	4000142	82pF 5% 63V					
C15-C19	4010106	10nF -20+80% 40V		C43	4010106	10nF -20+80% 40V	
				C44	4010105	1nF 10% 63V	
C20	4200525	22µF 20% 10V		C45	4200129	100µF -20+50% 16V	
C21	4010106	10nF -20+80% 40V		C48	4000137	47pF 5% 63V	
C22	4010118	330pF 10% 63V		C49-	4130230	100nF 20% 63V	
C23	4010106	10nF -20+80% 40V		C50			
C24	4130070	1µF 10% 50V		C51	4100266	330pF 2,5% 63V	
C25-C26	4130230	100nF 20% 63V		C52	4000150	68pF 5% 63V	
				C53	4000155	56pF 5% 63V	
C27-C28	4010105	1nF 10% 63V		C54	4100233	150pF 5% 63V	
				C55	4340002	2-22pF	
C29	4000191	47pF 5% 63V		C56	4340003	5,5-65pF	

LIST OF ELECTRICAL PARTS



Resistors not referred to are standard, see page 3-8

△ indicates that static electricity may destroy the component.

* Specially selected or adapted sample.

PCB 1,
8002671 HF, type 2336, 2337
8002818 HF, type 2338, 2340
8002908 HF, type 2339

IC2	8340756	**136**	LM1865	IC7	8340757	**136**	LA1245
IC3	8340758	**136**	LA3401	IC8	8340763	**136**	LF353
IC4	8340492	**102**	SP8629	IC9△	8340202	**102**	4066
IC5△	8340245	**102**	4011	IC10△	8340602	**101**	4052
IC6△	8341102	**101**	74HC4520	IC11△	8340782	**136**	4094

TR1-TR4	8320625	**42**	BF240	TR14*△	8320396	**24**	MPF4392
TR5	8320497	**20**	BC547B	TR15△	8320535	**22**	BF256C
TR6	8320509	**20**	BC548B	TR20	8320521	**20**	BC556B
TR7	8320503	**20**	BC557B	TR21	8320497	**20**	BC547B
TR9	8320627	**20**	BC549B	TR22	8320521	**20**	BC556B
TR10-TR11	8320503	**20**	BC557B	TR23	8320497	**20**	BC547B
TR12	8320497	**20**	BC547B	TR24	8320640	**17**	BC636
TR13	8320512	**20**	BC338-25	TR25	8320497	**20**	BC547B
				TR200	8320509	**20**	BC548B

D1	8300058	**209**	1N4148	D8	8300212	**209**	75V 0,2A
D2	8300568	**234**	SVc333C	D9	8300568	**234**	SVc333C
D3-D5	8300385	**209**	BA423	D10	8300212	**209**	75V 0,2A
D6	8300058	**209**	1N4148	D11-D14	8300058	**209**	1N4148
D7	8300385	**209**	BA423				

R25	5370326	10kΩ 20% 0,1W	R142	5020336	69,8kΩ 1% 1/4W
R51	5370128	100kΩ 20% 0,1W	R143	5020263	100kΩ 1% 1/4W
R73	5370330	220kΩ 20% 0,1W	R144	5020336	69,8kΩ 1% 1/4W
R141	5020263	100kΩ 1% 1/4W	R204	5370328	47kΩ 20% 0,1W

C2	4010106	10nF -20+80% 40V	C30	4130230	100nF 20% 63V
C3	4010101	4,7nF 10% 63V	C31	4010103	2,2nF 10% 63V
C4	4010107	22nF -20+80% 40V	C32	4010107	22nF -20+80% 40V
C5	4010101	4,7nF 10% 63V	C33	4130179	100nF 20% 63V
C6	4010107	22nF -20+80% 40V	C34	4010105	1nF 10% 63V
C7-C8	4010101	4,7nF 10% 63V	C35-C36	4200510	10µF 20% 16V
C9	4200512	1µF 20% 50V	C37	4010118	330pF 10% 63V
C10	4200129	100µF -20+50% 16V	C38	4200510	10µF 20% 16V
C11-C12	4010105	1nF 10% 63V	C39	4030023	47nF -20+80% 16V
C13	4200515	4,7µF 20% 25V	C40	4200523	0,47µF 20% 50V
C14	4000142	82pF 5% 63V	C41-C42	4200512	1µF 20% 50V
C15-C19	4010106	10nF -20+80% 40V	C43	4010106	10nF -20+80% 40V
C20	4200525	22µF 20% 10V	C44	4010105	1nF 10% 63V
C21	4010106	10nF -20+80% 40V	C45	4200129	100µF -20+50% 16V
C22	4010118	330pF 10% 63V	C48	4000137	47pF 5% 63V
C23	4010106	10nF -20+80% 40V	C49-C50	4130230	100nF 20% 63V
C24	4130070	1µF 10% 50V	C51	4100266	330pF 2,5% 63V
C25-C26	4130230	100nF 20% 63V	C52	4000150	68pF 5% 63V
C27-C28	4010105	1nF 10% 63V	C53	4000155	56pF 5% 63V
C29	4000191	47pF 5% 63V	C54	4100233	150pF 5% 63V
			C55	4340002	2-22pF
			C56	4340003	5,5-65pF

C57-C58	4130230	100nF 20% 63V	C83	4340002	2-22pF
C59	4130233	220nF 20% 63V	C84	4130233	220nF 20% 63V
C60	4130235	47nF 20% 63V	C85	4010103	2,2nF 10% 63V
C61-C62	4200515	4,7µF 20% 25V	C86	4130233	220nF 20% 63V
C63	4130235	47nF 20% 63V	C87	4010105	1nF 10% 63V
C64	4200517	2,2µF 20% 50V	C88	4130235	47nF 20% 63V
C65	4200129	100µF -20+50% 16V	C89-C90	4010107	22nF -20+80% 40V
C66	4010106	10nF -20+80% 40V	C91	4130230	100nF 20% 63V
C67	4130235	47nF 20% 63V	C92	4200510	10µF 20% 16V
C68-C69	4100210	1,5nF 5% 63V	C93	4010107	22nF -20+80% 40V
C70	4000226	68pF 5% 63V	C94	4010105	1nF 10% 63V
C71	4010107	22nF -20+80% 40V	C96-C97	4130230	100nF 20% 63V
C72	4010106	10nF -20+80% 40V	C98	4200483	47µF 20% 16V
C73	4130390		C200	4100209	470pF 5% 63V
C76	4100247	1,8nF 5% 63V	C201	4200510	10µF 20% 16V
C77	4010103	2,2nF 10% 63V	C202	4100238	3,3nF 5% 63V
C78	4130230	100nF 20% 63V	C203	4100235	680pF 5% 63V
C79	4100210	1,5nF 5% 63V	C204	4100261	6,8nF 2,5% 63V
C80	4130230	100nF 20% 63V	C205	4100260	2,2nF 2,5% 63V
C81	4340003	5,5-65pF	C206	4100210	1,5nF 5% 63V
C82	4130230	100nF 20% 63V	C207	4200515	4,7µF 20% 25V
			C208	4130230	100nF 20% 63V

L1	8020552	Coil 10uH 10%	L11	8020558	Coil Antenne LB
L2	8020568	Coil 2,7uH	L12	8020557	Coil Antenne MB
L3	8020569	Coil 18uH 10%	L13	8020561	Coil MF 455H
L4	8020552	Coil 10uH 10%	L14	8020562	Coil MF 455kHz
L5	8022240	Coil 19,5mH 2%	L200-L201	8022239	Coil 32mH 2%
L8	8020559	Coil MB S0116			
L9	8020560	Coil LB S0116			

BP1-BP3	8030134	10,7mHz	BP4	8030056	455kHz 1kHz

TU1	8050093	Tuner
	8050102	Tuner, type 2339

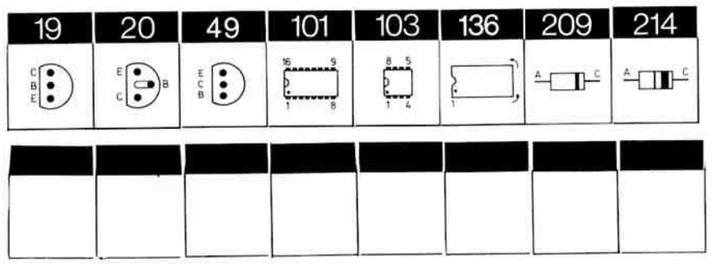
P1	7220431	Plug 9/9	P3	7220312	Plug 2pol.
P2	7220428	Plug 6/6	P4	7210612	Socket Antenne

X1	8030087	456kHz	X2	8030088	455kHz

PCB 2, 8002679
8002914, type 2338
Output and Power supply

IC200*	8340470	**31**	BDV65B 100V	IC205	8340400	**19**	MPSA13 30V
IC201*	8340469	**31**	BDV64B 100V				

TR1	8320497	**19**	BC547B	TR18	8320497	**20**	BC547B
TR2	8320552	**20**	BC327-25	TR19	8320507	**20**	BC337-25
TR3	8320497	**20**	BC547B	TR22	8320521	**20**	BC556B
TR4	8320498	**20**	BC547C	TR23	8320497	**20**	BC547B
TR5	8320369	**31**	BD534 45V	TR201-TR202	8320498	**20**	BC547C
TR6-TR7	8320497	**20**	BC547B	TR203	8320514	**20**	BC546B
TR8	8320503	**20**	BC557B	TR204	8320497	**20**	BC547B
TR9	8320369	**31**	BD534 45V	TR205	8320631	**17**	BF423
TR12	8320369	**31**	BD534 45V	TR206	8320497	**20**	BC547B
TR13	8320503	**20**	BC557B	TR207	8320503	**20**	BC557B
TR14-TR15	8320497	**20**	BC547B	TR208-TR209	8320646	**44**	BF858
TR16	8320428	**32**	BD438	TR210	8320505	**49**	BF422
TR17	8320503	**20**	BC557B				



Resistors not referred to are standard, see page 3-8

△ indicates that static electricity may destroy the component.

* Specially selected or adapted sample.

D1	8300058	**209**	1N4148	D11-D12	8300058	**209**	1N4148
D2	8300487	-	KBU6D	D14	8300212	**209**	1N4448
D3	8300297	-	B80 C3700/2200	D200	8300029	**209**	12V 5% 0,4W
D4	8300058	**209**	1N4148	D201-D203	8300058	**209**	1N4148
D5	8300541	**209**	3,3V 2% 0,4W	D204	8300409	**214**	BAV20 150V
D6-D8	8300058	**209**	1N4148	D205-D206	8300058	**209**	1N4148
D10	8300023	**209**	1N4002 100V				

R7	5020239	24,3kΩ 1% 1/4W	R41	5020782	365Ω 1% 1/4W
R8	5020219	5,36 1% 1/4W	R50	5220036	330kΩ 10% 1/2W
R11	5020770	4,42kΩ 1% 1/4W	R211	5010797	390Ω 2% 1/4W
R12	5020291	3,32 1% 1/4W	R214	5020110	10kΩ 1% 1/4W
R15	5020231	11,3kΩ 1% 1/4W	R215	5020633	150Ω 5% 0,35W
R16	5020335	10,2kΩ 1% 1/4W	R220-R221	5020658	270Ω 5% 0,3W
R18	5020881	22Ω 10% 0,25W	R226	5370341	100Ω 20% 0,1W
R30	5020200	2,1kΩ 1% 1/4W	R228-R229	5102016	0,22Ω 10% 1W
R33	5020194	1,58kΩ 1% 1/4W			
R40	5220036	330kΩ 10% 1/2W			

C3-C5	4130280	220nF 20% 100V	C201	4130257	33nF 20% 63V
C8-C9	4200510	10µF 20% 16V	C202	4200517	2,2µF 20% 50V
C10	4200688	47µF 20% 50V	C203	4000151	180pF 5% 63V
C11	4200525	22µF 20% 10V	C204	4010101	4,7nF 10% 63V
C12-C13	4130230	100nF 20% 63V	C205-C206	4200511	100µF 20% 10V
C14	4200510	10µF 20% 16V	C207	4000136	22pF 5% 63V
C15	4200417	4700µF -10+50% 16V	C208	4000343	47pF 2% 63V
C16	4010101	4,7nF 10% 63V	C209	4130262	22nF 20% 63V
C17	4010105	1nF 10% 63V	C210-C211	4130233	220nF 20% 63V
C20	4010101	4,7nF 10% 63V	C212	4200523	0,47µF 20% 50V
C200	4200368	100µF -10+100% 63V	C213	4200510	10µF 20% 16V
			C215-C216	4130233	220nF 20% 63V

L200	6850114	Coil o,5uH

P	7220580	Plug 2pol.	P18	7220160	Plug 5/4
P	7210510	Stikdåse minijack	P23	7220185	Plug 3/3
P14	7220431	Plug 9/9	P24	7220195	Plug 2/2
P15	7220429	Plug 7/7			

F	6600010	T4A-T/250V

RL6	7600046	Relay 6V

PCB 3, 8001219
Preamplifier

IC1△	8340759	**136**	TC9164	IC4△	8340760	**136**	TC9177
IC2	8340790	**103**	4558	IC5	8340790	**103**	4558
IC3△	8340761	**136**	TC9184	IC6△	8340763	**136**	LF353

TR1	8320497	**20**	BC547B	TR6	8320497	**20**	BC547B
TR2-	8320639	**49**	MPSA17	TR7	8320503	**20**	BC557B
TR3*				TR8	8320497	**20**	BC547B
TR4	8320497	**20**	BC547B	TR9-TR10	8320525	**19**	MPSA16
TR5	8320503	**20**	BC557B				

D1-D4	8300058	**209**	1N4148	D6-D9	8300058	**209**	1N4148
D5	8300407	**209**	12V 2% 0,4W				

C1-C8	4200512	1µF 20% 50V	C45-C46	4000193	47pF 5% 63V
C9-C16	4010155	220pF 63V	C47	4200512	1µF 20% 50V
			C48	4200510	10µF 20% 16V
C17-C18	4010105	1nF 10% 63V	C49	4130306	100nF 10% 63V
C19-C20	4130306	100nF 10% 63V	C50	4130268	10nF 5% 63V
			C51	4130304	22nF 10% 63V
C21	4200512	1µF 20% 50V	C52	4100237	2,2nF 5% 63V
C22-C23	4010111	3,3nF 10% 63V	C53	4000204	100pF 5% 63V
			C54	4200512	1µF 20% 50V
C24	4000205	150pF 5% 63V	C55	4000204	100pF 5% 63V
C25-C26	4200517	2,2µF 20% 50V	C56	4200510	10µF 20% 16V
			C57	4130306	100nF 10% 63V
C27	4000205	150pF 5% 63V	C58	4130268	10nF 5% 63V
C28	4200512	1µF 20% 50V	C59	4130304	22nF 10% 63V
C30	4000243	100pF 5% 63V	C60	4100237	2,2nF 5% 63V
C31	4000193	47pF 5% 63V	C61-C62	4200510	10µF 20% 16V
C32	4000243	100pF 5% 63V	C63-C64	4130305	33nF 10% 63V
C33	4000193	47pF 5% 63V			
C35-C38	4200512	1µF 20% 50V	C65	4200688	47µF 20% 50V
			C66	4200523	0,47µF 20% 50V
C39-C40	4200510	10µF 20% 16V	C69-C70	4010155	220pF 10% 63V
C41-C42	4200512	1µF 20% 50V	C71-C73	4130306	100nF 10% 63V
C43-C44	4000205	150pF 5% 63V	C74-C75	4010105	1nF 10% 63V

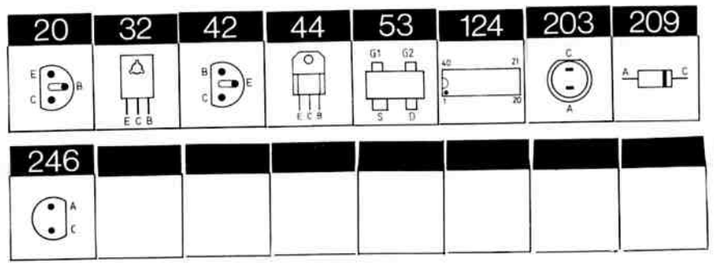
P1-P2	7220428	Plug 6/6	P6	7220429	Plug 7/7
			P8	7220710	Plug 3pol.
P3	7220425	Plug 3/3	P9-P14	7210418	Socket 7pol.
P4	7220313	Plug 3pol.			
P5	7220425	Plug 3/3			

PCB 4, 8001218
Microcomputer

IC1△	8341069	**136**	8032	IC4△	8341309		27512
IC2△	8341105	**103**	PCF8583	IC5△	8340777	**136**	74HCT573
IC3△	8340276	**101**	4021	IC6△	8340373	**136**	4001B

TR1	8320509	**20**	BC548B	TR8	8320625	**19**	BF240
TR2	8320510	**20**	BC558B	TR9	8320510	**20**	BC558B
TR6	8320509	**20**	BC548B	TR10-TR11	8320509	**20**	BC548B
TR7	8320510	**20**	BC558B				

D1	8300128	**209**	5,6V 5% 0,4W	D5	8300056	**209**	ZTE 1.5
D2	8300600	**209**	1N4148	D8-D12	8300058	**209**	1N4148
D3-D4	8300058	**209**	1N4148				



Resistors not referred to are standard, see page 3-8

△ indicates that static electricity may destroy the component.

C1	4200364	47µF -10+50% 10V	C35	4130307	150pF 10% 63V
C2	4010106	10nF -20+80% 40V	C37	4000204	100pF 5% 63V
C3	4130313	470nF 20% 63V	C38	4010103	2,2nF 10% 63V
C4	4130307	150nF 10% 63V	C39	4130313	470nF 20% 63V
C5-C9	4010035	1µF 10% 63V	C40	4010128	470pF 10% 63V
			C41	4000193	47pF 5% 63V
C10	4200414	33µF -10+50% 16V	C42	4010128	470pF 10% 63V
C12	4010201	10nF -10+80% 40V	C43	4130315	15nF 5% 63V
C13	4010105	1nF 10% 63V	C44	4010128	470pF 10% 63V
C14	4000144	10pF 63V	C45	4000193	47pF 5% 63V
C15	4130307	150nF 10% 63V	C46-C47	4000204	100pF 5% 63V
C16-C21	4010035	1nF 10% 63V	C48	4010128	470pF 10% 63V
C22	4000204	100pF 5% 63V	C49	4010106	10nF -20+80% 40V
C23-C26	4010035	1nF 10% 63V	C50	4010128	470pF 10% 63V
			C51	4010105	1nF 10% 63V
C28-C29	4010035	1nF 10% 63V	C52	4010035	1nF 10% 63V
C30-C31	4000136	22pF 5% 63V			

L1-L2	8020342	10uH	L3-L4 L5	8020707	Coil 4,7uH 10%
				8020707	Coil 4,7uH 10%

F1	6604009	Sikr. 1A 250V

BP1	8030056	455kHz

P4	7200056	Socket 28pol.	P16	7220585	Plug 5pol.
P12-P13	7220554	Plug 12/12	P25	7220176	Plug 2/2

X1	8090104	Crystal 11,0592 mHz	X3	8090078	32,768kHz
X2	8030024	455kHz		8700027	Lithium battery

PCB 5, 8001212
Socket panel

C1-C2	4130214	10nF 20% 63V	C4-C5	4130214	10nF 20% 63V
C3	4010027	1nF 10% 63V	C7-C8	4010027	1nF 10% 63V

PCB 6, 8002173
Fan Regulation

TR1	8320497	**20**	BC547B	TR4-TR5	8320542	**44**	BD825-16 45V
TR2	8320540	**20**	BC557C				
TR3	8320521	**20**	BC556B				

D1	8300029	**209**	12,0V 5% 0,4W

R3	5020565	8,25kΩ 1% 1/4W	R7	5020539	47,5kΩ 1% 1/4W
R5	5230012	15Ω 20% 1,8W			

C1	4010041	10nF -20+80% 40V	C5	4130235	47nF 20% 63V
C2	4130259	220nF 1% 160V	C6	4200542	68µF 20% 63V
C3	4130260	47nF 1% 160V	C7	4200102	470µF -10+100% 40V
C4	4010105	1nF 10% 63V			

PCB 7, 8001280
Relay

TR2	8320512	BC338-25

D1	8300058	**209** 1N4148

R7	5020455	470Ω 5% 1W	R9	5020455	470Ω 5% 1W

P9	7220585	Plug 5pol.	P23	7220319	Plug 8pol.
P21	7220206	Plug 5/4	P25	7220711	Plug 4pol.

RL1	7600073	Relay 6V

PCB 9, 8001284
Display

IC1△	8340467	**124** 5450

TR2	8320627	**20**	BC549B	TR9	8320514	**20**	BC546B
TR3	8320625	**42**	BF240	TR10	8320683	**32**	BD788 60V
TR8	8320776		BC546B				

D4-D25	8330150	**246**	Led red	D28-D31	8330227	**203**	IR Emitter

R12	5370068	22kΩ 20% 0,1W

C1	4130230	100nF 20% 63V	C15	4200380	1µF -20+50% 63V
C3	4010128	470pF 10% 63V	C16	4010155	220pF 10% 63V
C4	4000193	47pF 5% 63V	C17	4010128	470pF 10% 63V
C5-C6	4010128	470pF 10% 63V	C18	4000142	82pF 5% 63V
			C19	4201035	2,2µF -10+50% 63V
C7	4010106	10nF -20+80% 40V	C20	4200342	10µF -10+50% 63V
C8-C9	4000243	100pF 5% 63V	C21	4130230	100nF 20% 63V
			C23-C24	4010105	1nF 10% 63V
C10	4010189	10nF 30% 25V			
C11-C12	4010105	1nF 10% 63V			

L1	8020562	Coil 455kHz	L3	8020621	Coil 100uH

P	7220577	Plug 17pol.	P11	7220548	Plug 12/12

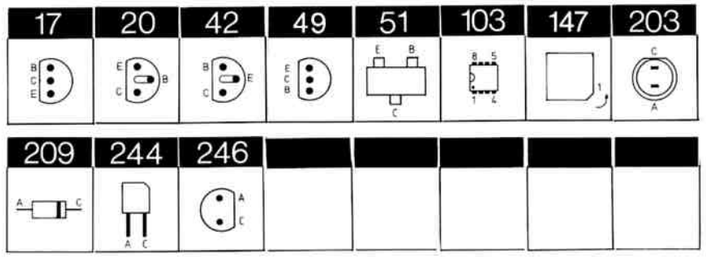
S1-S2	7400268	Omskifter 1pol

PCB 17, 8050093
8050102 type 2339
Tuner

TR1-TR2	8320610	**53**	BF995	TR3-TR4	8320672	**53**	BFS20

D1-D4	8300301	**209**	BB204

R32-R34	5370253	47kΩ 20% 0,1W



Resistors not referred to are standard, see page 3-8

△ indicates that static electricity may destroy the component.

* Specially selected or adapted sample.

C1	4000331	6,8pF 0,25pF 50V	C17-C18	4000260	5pF 0,5pF 50V
C2	4000257	27pF 5% 50V			
C3-C6	4010132	1nF 10% 50V	C19-C20	4010132	1nF 10% 50V
C7	4000257	27pF 5% 50V	C21	4000275	15pF 5% 50V
C8	4000332	8,2pF 0,5pF 50V	C22	4000228	12pF 5% 50V
C9	4000258	4pF 0,25pF 50V	C23	4010132	1nF 10% 50V
C10	4000330	5,6pF 0,5pF 50V	C24	4010157	10nF 10% 50V
C12	4010132	1nF 10% 50V	C25	4000294	0,5pF 0,25pF 50V
C13	4000231	68pF 5% 50V	C26	4200512	1µF 20% 50V
C14	4010157	10nF 10% 50V	C27-C29	4000321	220pF 5% 50V
C16	4000332	8,2pF 0,5pF 50V			

L1	6850158	Coil 70nH	L6	8020632	Coil 0,68uH 20%
L2	6850157	Coil 115nH	L7	8020567	Coil 10,7mHz
L3	8020577	Coil 2,2uH 10%	L8	6850159	Coil 100nH
L4-L5	6850157	Coil 115nH			

P1	7220129	Plug 2/2	P3	7220210	Plug 4/4
P2	7220212	Plug 3/3			

PCB 12, 8002690
Microcomputer

IC1△	8340884	**147**	HMC S4040	IC2	8340141	**103**	LM 741

TR1	8320108	**20**	BC 548B	TR20-TR25	8320108	**20**	BC 548B
TR2	8320104	**20**	BC 558B	TR26	8320640	**49**	BC 636
TR3	8320311	**42**	BF 240	TR27	8320108	**20**	BC 548B
TR4-TR5	8320108	**20**	BC 548B	TR28	8320640	**49**	BC 636
TR6	8320104	**20**	BC 558B	TR29	83202108	**20**	BC 548B
TR7	8320108	**20**	BC 548B	TR30	8320640	**49**	BC 636
TR11	8320104	**20**	BC 558B	TR31	8320108	**20**	BC 548B
TR12	8320450	**17**	BC 369	TR32	8320640	**49**	BC 636
TR13	8320104	**20**	BC 558B	TR33	8320108	**20**	BC 548B
TR14	8320450	**17**	BC 369	TR34	8320640	**49**	BC 636
TR15	8320104	**20**	BC 558B	TR35	8320108	**20**	BC 548B
TR16	8320450	**17**	BC 369	TR36-TR39	8320104	**20**	BC 558B
TR17	8320104	**20**	BC 558B				
TR18	8320450	**17**	BC 369	TR40-TR41	8320108	**20**	BC 548B
TR19	8320329	**20**	BC 338-25/18				

D1-D19	8300058	**209**	1N 4148	D4-D33	8300058	**209**	1N 4148
D20	8300404	**209**	BZX79B 12				

R58	5020288	1 MΩ 1% 1/4W
R117	5370074	10 kΩ 20% 0.1W

C1	4003128	100 pF 5% 63V	C18-C19	4010088	220 pF 63V
C2	4130228	470 nF 20% 63V			
C3	4010103	2.2 nF 10% 63V	C20-C21	4000136	22 pF 5% 63V
C4	4010024	470 pF 10% 63V			
C5	4200634	47 µF -10+50% 10V	C22	4010041	10 nF -20+80% 40V
C6	4000057	47 pF 5% 63V	C27-C32	4010041	10 nF -20+80% 40V
C7	4010024	470 pF 10% 63V			
C8	4130179	100 nF 20% 63V	C33	4200396	220 µF -20+50% 16V
C9	4010024	470 pF 10% 63V	C34	4200364	47 µF -10+50% 10V
C10	4000057	47 pF 5% 63V	C35	4130210	47 nF 20% 63V
C11	4010041	10 nF -20+80% 40V	C36	4130228	470 nF 20% 63V
C13	4130215	220 nF 20% 63V	C37	4130210	47 nF 20% 63V
C14	4200364	47 µF -10+50% 10V	C38	4010041	10 nF -20+80% 40V

L1	8020342	Coil 10 µH 10%

BP1	8030056	455 kHz ±1kHz

X1	8090057	Crystal 3.64 MHz

S1	7400268	Switch 1 pol.

PCB 13, 8002873
IR – Left

TR1	8320311	**42**	BF 240	TR2	8320095	**20**	BC 549B
D1	8330145	**244**	BPW 82	D2-D3	8330140	**203**	TSHA 5502

C1	4000057	47 pF 5% 63V	C4	4010024	470 pF 10% 63V
C2	4010024	470 pF 10% 63V	C5	4000243	100 pF 5% 63V
C3	4130356	100 nF 20% 63V			

L1	8020590	Coil 270 µH 10%	L2	8020590	Coil 270 µH 10%

P35	7220447	Plug 5/5 pins

PCB 14, 8002874
IR – Right

14TR1	8320311	**42**	BF 240	14TR2	8320095	**20**	BC 549B
14D1	8330145	**244**	BPW 82	14D2-14D3	8330140	**203**	TSHA 5502

C1	4000057	47 pF 5% 63V	C4	4010024	470 pF 10% 63V
C2	4010024	470 pF 10% 63V	C5	4000243	100 pF 5% 63V
C3	4130356	100 nF 20% 63V			

L1	8020590	Coil 270 µH 10%	L2	8020590	Coil 270 µH 10%

P36	7220447	Plug 5/5 pins

PCB 15, 8002694 Display

TR1 TR30	8320615	**51**	BC 848B						
D1-D79	8330152	**246**	LED reed	DP1-DP5	8330131	HD 1075R/P 100PA			
D85-D97	8330151	**246**	LED Green						

P1	7220581	Plug 7/7 pins	P2	7220587	Plug 7/7 pins

C1	4003128	100 pF 5% 63V	C18-C19	4010088	220 pF 63V
C2	4130228	470 nF 20% 63V			
C3	4010103	2.2 nF 10% 63V	C20-C21	4000136	22 pF 5% 63V
C4	4010024	470 pF 10% 63V			
C5	4200634	47 µF -10+50% 10V	C22	4010041	10 nF -20+80% 40V
C6	4000057	47 pF 5% 63V	C27-C32	4010041	10 nF -20+80% 40V
C7	4010024	470 pF 10% 63V			
C8	4130179	100 nF 20% 63V	C33	4200396	220 µF -20+50% 16V
C9	4010024	470 pF 10% 63V	C34	4200364	47 µF -10+50% 10V
C10	4000057	47 pF 5% 63V	C35	4130210	47 nF 20% 63V
C11	4010041	10 nF -20+80% 40V	C36	4130228	470 nF 20% 63V
C13	4130215	220 nF 20% 63V	C37	4130210	47 nF 20% 63V
C14	4200364	47 µF -10+50% 10V	C38	4010041	10 nF -20+80% 40V
L1	8020342	Coil 10 µH 10%			
BP1	8030056	455 kHz ±1kHz			
X1	8090057	Crystal 3.64 MHz			
S1	7400268	Switch 1 pol.			

PCB 13, 8002873
IR – Left

TR1	8320311	**42**	BF 240	TR2	8320095	**20**	BC 549B
D1	8330145	**244**	BPW 82	D2-D3	8330140	**203**	TSHA 5502
C1	4000057	47 pF 5% 63V		C4	4010024	470 pF 10% 63V	
C2	4010024	470 pF 10% 63V		C5	4000243	100 pF 5% 63V	
C3	4130356	100 nF 20% 63V					
L1	8020590	Coil 270 µH 10%		L2	8020590	Coil 270 µH 10%	
P35	7220447	Plug 5/5 pins					

PCB 14, 8002874
IR – Right

14TR1	8320311	**42**	BF 240	14TR2	8320095	**20**	BC 549B
14D1	8330145	**244**	BPW 82	14D2-14D3	8330140	**203**	TSHA 5502
C1	4000057	47 pF 5% 63V		C4	4010024	470 pF 10% 63V	
C2	4010024	470 pF 10% 63V		C5	4000243	100 pF 5% 63V	
C3	4130356	100 nF 20% 63V					
L1	8020590	Coil 270 µH 10%		L2	8020590	Coil 270 µH 10%	
P36	7220447	Plug 5/5 pins					

PCB 15, 8002694 Display

TR1-TR30	8320615	**51**	BC 848B				
D1-D79	8330152	**246**	LED reed	DP1-DP5	8330131		HD 1075R/P 100PA
D85-D97	8330151	**246**	LED Green				
P1	7220581	Plug 7/7 pins		P2	7220587	Plug 7/7 pins	

Standard Resistors:

Resistors SMD 2% 1/8 W
SMD 5% 1/8 W

	5%	2%	2%	2%	2%	2%	5%	5%
	x1	**x10**	**x100**	**x1K**	**x10K**	**x100K**	**x1M**	**x10M**
1.0	5011623	5011647	5011218	5011227	5011241	5011256	5011267	5011730
1.1	5011624	5011648	5011669	5011681	5011689	5011694	5011707	
1.2	5011625	5011649	5011219	5011682	5011490	5011257	5011708	
1.3	5011626	5011650	5011670	5011683	5011242	5011258	5011709	
1.5	5011627	5011651	5011220	5011228	5011243	5011259	5011710	
1.6	5011628	5011652	5011671	5011684	5011690	5011695	5011711	
1.8	5011629	5011653	5011672	5011229	5011244	5011260	5011712	
2.0	5011630	5011654	5011673	5011685	5011691	5011696	5011713	
2.2	5011216	5011655	5011674	5011230	5011245	5011261	5011714	
2.4	5011634	5011656	5011675	5011686	5011246	5011697	5011715	
2.7	5011635	5011657	5011497	5011231	5011247	5011262	5011716	
3.0	5011731	5011658	5011499	5011500	5011692	5011698	5011717	
3.3	5011217	5011659	5011676	5011232	5011248	5011263	5011718	
3.6	5011636	5011660	5011677	5011687	5011249	5011264	5011719	
3.9	5011637	5011661	5011221	5011233	5011491	5011699	5011720	
4.3	5011638	5011662	5011498	5011688	5011492	5011700	5011721	
4.7	5011639	5011269	5011222	5011234	5011250	5011265	5011722	
5.1	5011640	5011663	5011678	5011235	5011493	5011701	5011723	
5.6	5011641	5011664	5011223	5011236	5011251	5011702	5011724	
6.2	5011642	5011665	5011224	5011237	5011693	5011703	5011725	
6.8	5011643	5011666	5011225	5011238	5011252	5011704	5011726	
7.5	5011644	5011667	5011679	5011239	5011253	5011705	5011727	
8.2	5011645	5011270	5011226	5011240	5011254	5011266	5011728	
9.1	5011646	5011668	5011680	5011489	5011255	5011706	5011729	

(Glue dots, approx. 200, part no. 3181932).

Resistors 5% 1/2 W

	x1	x10	x100	x1K	x10K	x100K	x1M	x10M
1.0		5011000	5011013	5011028	5011044	5010313	5011069	5011083
1.2	5011406	5011001	5011014	5011030	5011045	5011058	5010421	
1.5	5010727	5011002	5011015	5011031	5011046	5011059	5011071	
1.8	5010857	5010787	5011016	5011033	5011047		5011072	
2.2	5011335	5010708	5010815	5011034	5011048	5011061	5011074	
2.7		5010803	5011018	5010055	5011049	5011062	5011075	
3.3	5020803	5011007	5011019	5011037		5011063	5010381	
3.9		5010782	5011021	5010700	5011051		5010392	
4.7	5010765	5011009	5011022	5010035	5010036	5011065	5011078	
5.6		5011010	5011023	5011041		5011066	5011079	
6.8	5010874	5011011	5011024	5011042	5010810	5011067	5011080	
8.2		5011012	5011026	5011043	5010038	5011068	5011081	

Resistors 5% 1/4 W

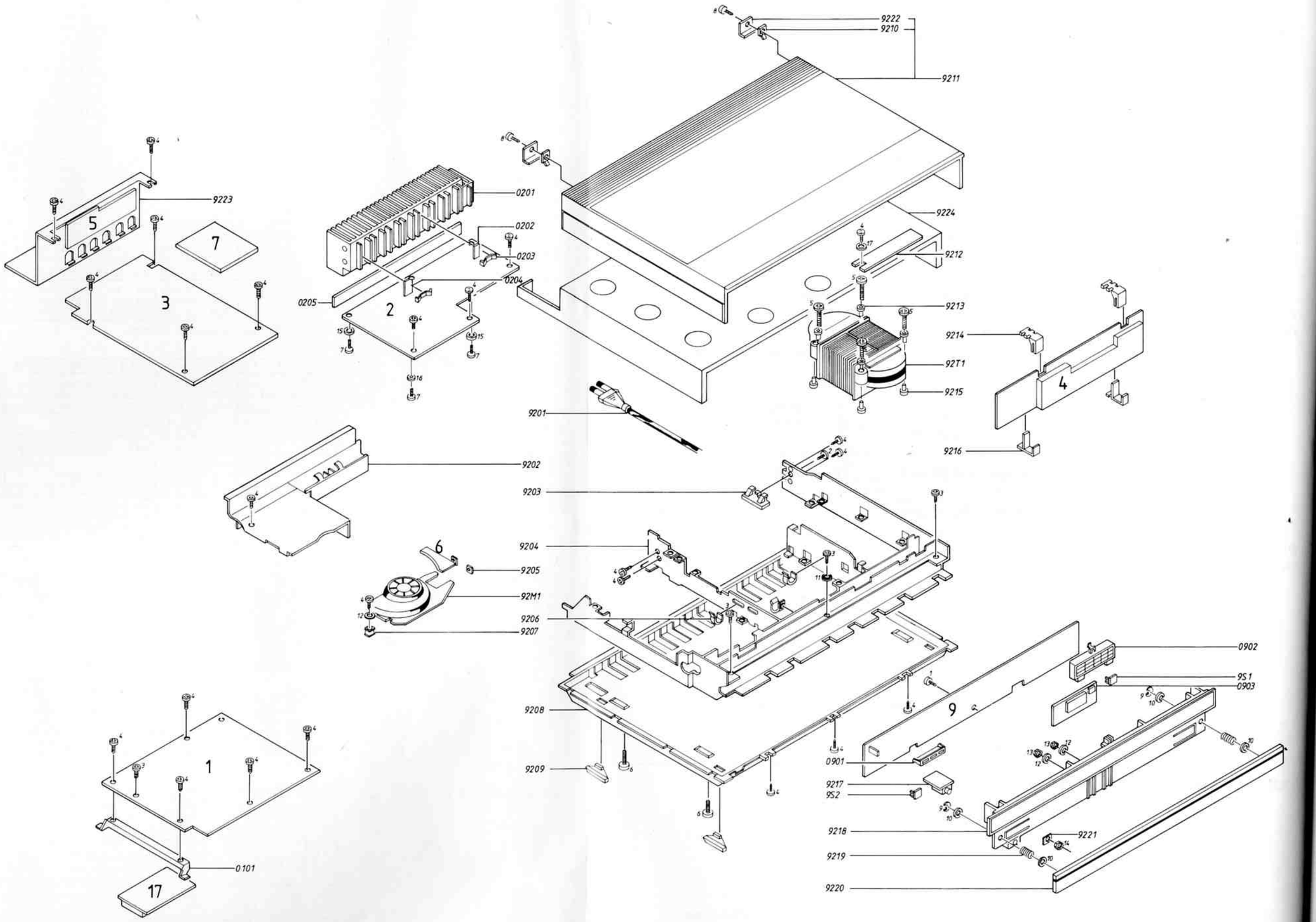
	x1	x10	x100	x1K	x10K	x100K	x1M	x10M
1.0	5010592	5010506	5010065	5010040	5010059	5010049	5010054	5010638
1.2		5010595	5010128	5010153	5010046	5010047	5010665	
1.5	5011348	5010468	5010057	5010247	5010053	5010063	5010093	
1.8		5010822	5010362	5010066	5010135	5010072	5010791	
2.2	5010682	5010448	5010092	5010064	5010079	5010120	5010245	
2.7	5010925	5010403	5010000	5010298	5010141	5010083	5010431	
3.3		5010253	5010044	5010076	5010075	5010117	5010848	
3.9	5011377	5010622	5010070	5010069	5010060	5010073	5010714	
4.7	5010888	5010411	5010058	5010048	5010045	5010077	5011513	
5.6	5010706	5010151	5010067	5010041	5010061	5010071	5010658	
6.8	5010904	5010039	5010144	5010052	5010062	5010074		
8.2	5010880	5010056	5010068	5010154	5010091	5010505		

Resistors 5% 1/8 W

	x1	x10	x100	x1K	x10K	x100K	x1M	x10M
1.0		5011464	5011357	5010816	5010935	5011440	5011459	5020875
1.2		5011351	5011084	5011442	5011338	5011341	5011175	
1.5		5011463	5011443	5011178	5011364	5011398	5011460	
1.8			5011350	5011361	5011344	5011468		
2.2	5011032	5011376	5010886	5011353	5010833	5011369	5011342	
2.7		5011471	5011355	5011362	5011366	5011370	5011478	
3.3			5011337	5010827	5011346	5011371	5011462	
3.9		5011438	5011817	5011157	5011457	5011372	5020876	
4.7	5011363	5011038	5011441	5011363	5010937	5011343	5011611	
5.6		5011412	5011358	5010885	5011166	5011340		
6.8		5011356	5011336	5010839	5011367	5011458		
8.2		5011466	5011354	5011339	5011368	5011373		

4-1

BEOMASTER 6500



LIST OF MECHANICAL PARTS

01 modul	8002671	PCB HF, type 2336, 2337
	8002818	PCB HF, type 2338, 2340
	8002908	PCB HF, type 2339
0101	2566047	Rail
02 modul	8002679	PCB Output and power supply
0201	2568679	Heatsink
0202	6141103	PC-Board
0203	2819175	Spring
0204	3170001	Mica sheet
0205	2560123	Rail
03 modul	8001219	PCB Preamplifier
	8001280	PCB Relay
04 modul	8001218	Microcomputer
	8001290	PCB with IC 74HCT21
05 modul	8001212	Socket panel
	7210518	Socket 8pol DIN
	7210520	Socket HT 3pol
	7210521	Socket HT 4pol
	7210558	Socket AM
	7210820	Socket FM
06 modul	8002173	PCB Fan regulation
09 modul	8001284	PCB Display
0901	3131252	Housing, display
	3370155	Tape, display
0902	3131260	Housing, programme
	3370156	Tape, programme
0903	8002683	PC-Board
9S1-9S2	7400268	Switch 1-pole
17 modul	8050093	Tuner FM
	8050102	Tuner FM, type 2339

9201	6271101	Mains cable, type 2336, 2337	9212	8002778	PCB mount. fuse type 2336, 2337, 2340
	6270380	Mains cable, type 2338		8002814	PCB mount fuse, type 2338, 2339
	6271119	Mains cable, type 2339	9213	2938154	Bushing
	6270297	Mains cable, type 2340	9214	3152341	Holder
			9215	2938154	Bushing
9202	3131211	Housing for fan	9216	3014060	Holder
9203	3152367	Cable holder	9217	8002680	PCB Headphones with plugs
9204	3454609	Frame			
9205	2938205	Bushing	9218	3114316	Display Housing
9206	3152366	Cable holder	9219	2812095	Spring
9207	2938206	Bushing	9220	2569178	Rail
9208	3454652	Bottom		2569202	Rail, white
9209	3035119	Rubber foot	9221	2640050	Locking plate
9210	2391059	Locking plate	9222	3034073	Locking plate
9211	3414160	Cabinet	9223	8001212	Socket panel
	3430502	Cabinet, white	9224	3114356	Inner chassis

4-2

92T1	8013354	Transformer, type 2336
	8013362	Transformer, type 2337
	8013363	Transformer, type 2338
	8013364	Transformer, type 2339
	8013365	Transformer, type 2340
92M1	8410011	Fan complete
	6276079	Main cable bundel

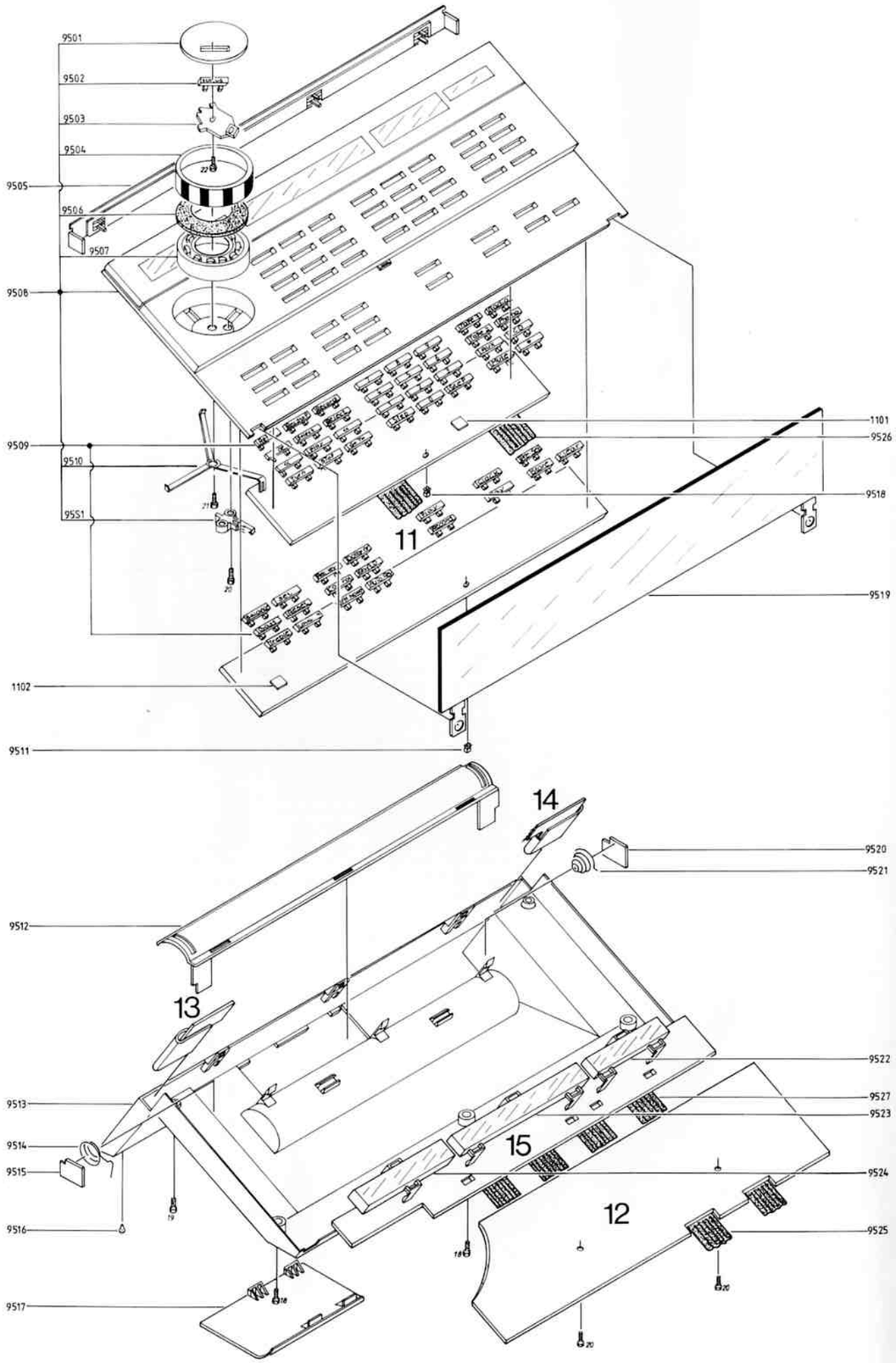
Survey of screws, washers etc.

1	2013118	Screw 3,0x8
2	2015094	Screw M3,5x6,5
3	2039008	Screw AM 3x6
4	2039020	Screw 3x5
5	2043003	Screw AM 4x25
6	2043020	Screw AM 4x6
7	2013089	Screw U2,9x7,9
8	2043011	Screw AM 4x8
9	2390001	Washer 2,3
10	2620020	Washer ø3,2x7
11	2625002	Washer A3,2
12	2622015	Washer ø3,2x8x0,5
13	2380011	Nut M3
14	2380145	Nut
15	2622052	Washer ø3,2x8x1
16	2622014	Washer ø3,2x6x1
17	2622041	Washer 3,2

Parts not shown

3397571	Foam packing set for Beomaster
3917098	Insert for Beomaster
3391251	Outer carton for Beomaster
3501073	Users Guide, Beosystem 6500 DK
3501074	Users Guide, Beosystem 6500 S
3501075	Users Guide, Beosystem 6500 SF
3501076	Users Guide, Beosystem 6500 GB
3501077	Users Guide, Beosystem 6500 D
3501078	Users Guide, Beosystem 6500 NL
3501079	Users Guide, Beosystem 6500 F
3501080	Users Guide, Beosystem 6500 E
3501081	Users Guide, Beosystem 6500 I
3502716	Setting up Guide, Beomaster 6500 DK
3502717	Setting up Guide, Beomaster 6500 S
3502718	Setting up Guide, Beomaster 6500 SF
3502719	Setting up Guide, Beomaster 6500 GB
3502720	Setting up Guide, Beomaster 6500 D
3502721	Setting up Guide, Beomaster 6500 NL
3502722	Setting up Guide, Beomaster 6500 F
3502723	Setting up Guide, Beomaster 6500 E
3502724	Setting up Guide, Beomaster 6500 I
3502725	Setting up Guide, Beomaster 6500 USA

4-3



Bang & Olufsen

Master Control Panel, Type 1551

11Modul	8002685	PCB Keyboard			
1101	7500211	Contact spring			
1102	7500211	Contact spring			
12Modul	8002690	PCB Microcomputer			
13Modul	8002873	PCB IR - left			
14Modul	8002874	PCB IR - right			
15Modul	8002694	PCB, display			
9501	2804068	Washer, volume	9514	2818075	Spring
	2804066	Washer, volume white	9515	2805000	Screen
			9516	3010007	Rubber foot
9502	2776036	Buttons, status	9517	3164839	Battery cover
9503	8002872	PC-Board with switch		3164772	Battery cover, white
	7400336	Switch	9518	2576050	Spacer
9504	2804053	Wheel	9519	2569172	Cover
9505	3322103	IR - window		2569203	Cover, white
9506	2622405	Packing	9520	2805000	Screen
9507	2900013	Ball bearing	9521	2818074	Spring
9508	3168901	Panel complete	9522	3131253	Housing, display
	3168808	Panel complete, white	9523	3131254	Housing, programme
9509	2776081	Set of buttons	9524	3131255	Housing, volume
9510	2854125	Arm	9525	6200062	Ribbon cable
9511	2570050	Spacer	9526	6200133	Ribbon cable
9512	2952015	Holder	9527	6200128	Ribbon cable
9513	3454620	Bottom		8700015	Battery
	3454580	Bottom, white			
95S1	7400356	Switch			

Screws for MCP

18	2039027	Screw 3x6
19	2039084	Screw 3x8
20	2013118	Screw PT 3x8
21	2013080	Screw 2,9x9,5
22	2013099	Screw 2,9x6,5

Parts not shown. MCP

3391273	Outer carton for MCP
3397431	Foam packing set for MCP
3391687	Insert for MCP
3501082	Setting up Guide, MCP DK
3501083	Setting up Guide, MCP S
3501084	Setting up Guide, MCP SF
3501085	Setting up Guide, MCP GB
3501086	Setting up Guide, MCP D
3501087	Setting up Guide, MCP NL
3501088	Setting up Guide, MCP F
3501089	Setting up Guide, MCP E
3501090	Setting up Guide, MCP I

Bang & Olufsen

TILBEHØR
ACCESSORIES

Riaa modul
8001245

TR1	8320768	**51**	BC850B	TR4	8320769	**51**	BC849C
TR2	8320769	**51**	BC849C	TR5	8320755	**51**	BC847B
TR3	8320768	**51**	BC850B				

D1	8300482	**217**	4148				

C1	4010195	2,7nF 5% 50V		C8	4010220	100nF 10% 50V	
C2	4010220	100nF 10% 50V		C9	4000319	150pF 5% 50V	
C3	4000319	150pF 5% 50V		C10	4010167	2,7nF 10% 100V	
C4	4010167	2,7nF 10% 100V		C11	4130220	10nF 5% 63V	
C5	4130220	10nF 5% 63V		C12	4000286	470pF 5% 50V	
C6	4000286	470pF 5% 50V		C13	4010173	4,7nF 10% 50V	
C7	4010195	2,7nF 5% 50V		C14	4000290	22nF 10% 50V	

P1	7220883	Plug 7pol.

STAND 6500, type 2095

9001	3458744	Top
9002	3454672	Plate, bottom
9003	2570073	Tube
9004	2570074	Tube stand
9005	3454671	Foot
9006	2938275	Bushing
9007	2938275	Bushing

Parts not shown

	3397709	Foam packing
	3392135	Folie
	3390419	Screws

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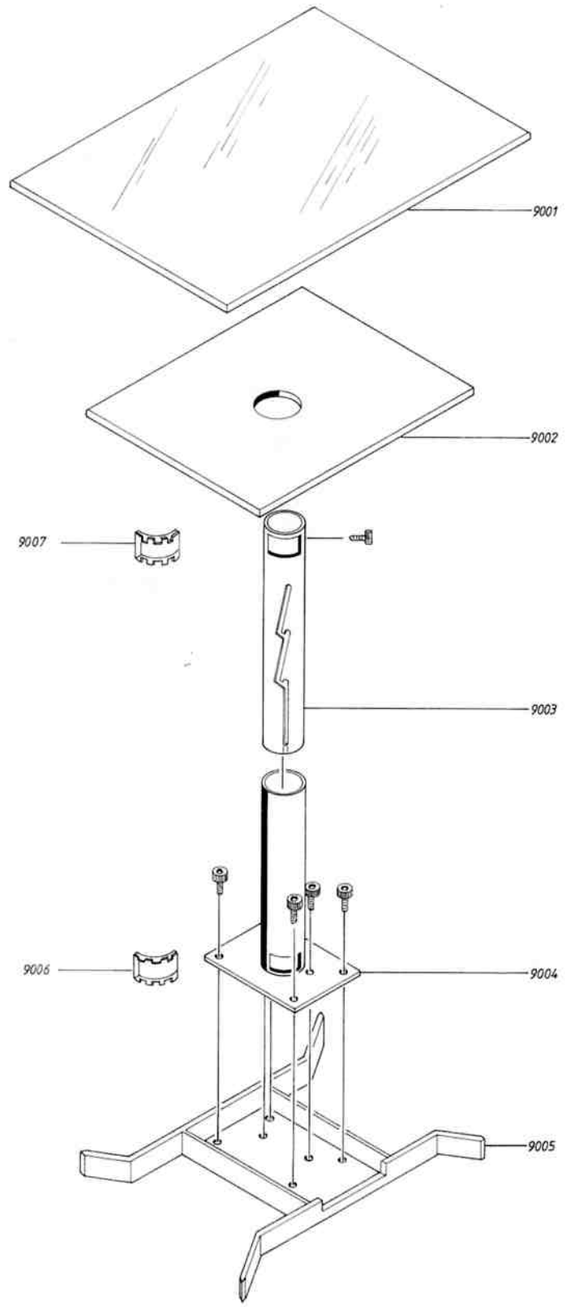
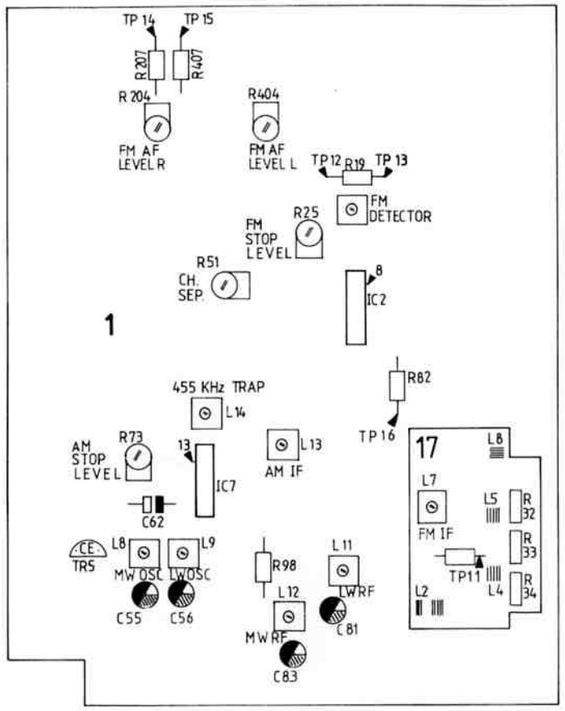
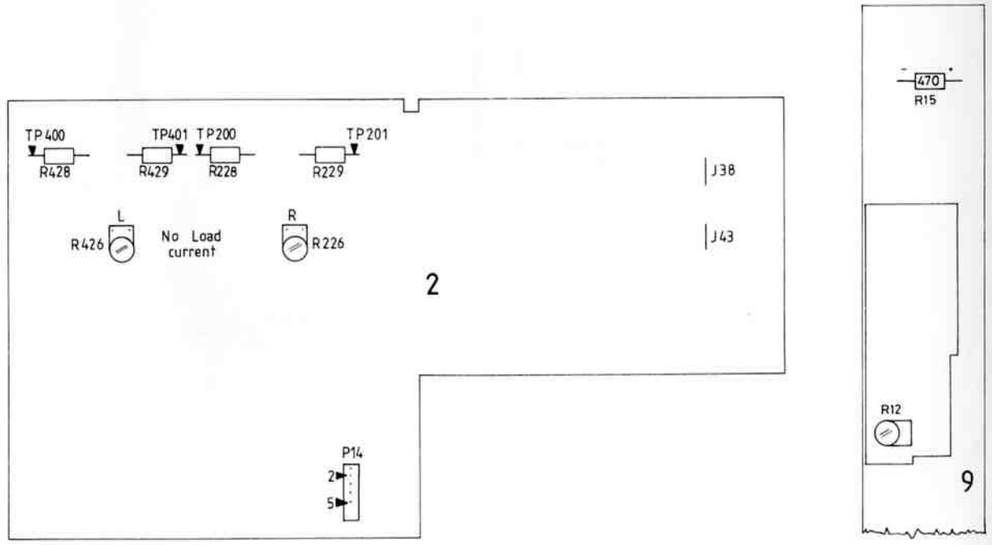
4-4



5-1





ELEKTRISKE JUSTERINGER

Henvisningerne er for højre kanal. (Henvisningerne i parantes er for venstre kanal).
Alle betjeninger gøres på Master Control Panelet.

5V Netdel

Tilslut DC voltmeter til 2P14-5.
Juster til 5,1V±0,1V ved at afbryde eller kortslutte 2J38 og 2J43.

Tomgangsstrøm

Tomgangsstrømmen justeres medens modtageren er kold og med neddrejet volumekontrol.
Højttalere må ikke være tilsluttet.
Tilslut DC voltmeter mellem 2TP200 og 2TP201 (2TP400 og 2TP401).
Juster 2R226 (2R426) til 11mV.

Brightness (Display)

Tilslut DC voltmeter over 9R15.
Tryk AUX.
Juster 9R12 til 3,75V.

Strømforsyning (MCP)

Kortslut 12TP3 til stel.
Tilslut et DC voltmeter til kollektor på 12TR37.
Juster 12R117 til 4,75V.

Volume sensor (MCP)

Tilslut DC voltmeter til ben 2 på 12IC2.
Når volume hjulet drejes skal spændingen svinge minimum mellem 2V og 2,8V.
Eventuel justering kan gøres ved at klippe eller lodde 12R23, 12R25 eller 12J57.

ELECTRICAL ADJUSTMENTS

Instructions apply to the right channel. (Instructions given in brackets apply to the left channel). All operations are carried out from the Master Control Panel.

5V Power-supply unit

Connect DC voltmeter to 2P14-5.
Adjust to 5.1V ± 0.1V by disconnecting or short-circuiting 2J38 and 2J43.

No-load current

Adjust the no-load current while the receiver is cold and with the volume control turned down.
Speakers must not be connected.
Connect DC voltmeter between 2TP200 and 2TP201 (2TP400 and 2TP401).
Adjust 2R226 (2R426) to 11mV.

Brightness (Display)

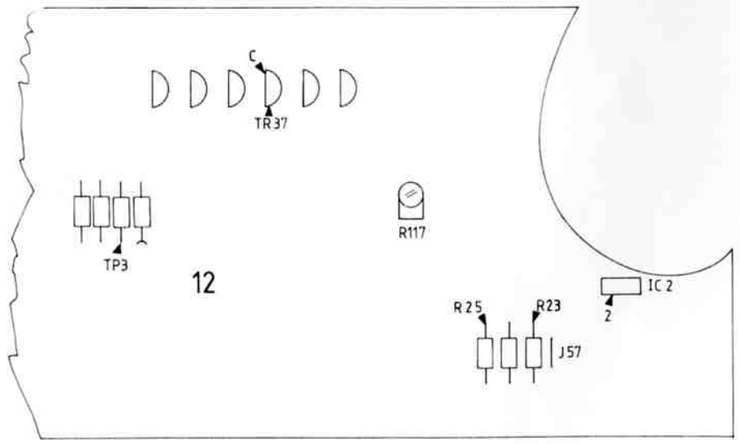
Connect DC voltmeter across 9R15.
Press AUX.
Adjust 9R12 to 3.75V.

Power supply (MCP)

Short-circuit 12TP3 with chassis.
Connect a DC voltmeter to the collector at 12TR37.
Adjust 12R117 to 4.75V.

Volume sensor (MCP)

Connect DC voltmeter to pin 2 at 12IC2.
When the volume wheel is turned, the voltage should oscillate between 2V and 2.8V as a minimum.
Any adjustments which might be necessary may be performed by cutting or soldering 12R23, 12R25 or 12J57.



ELEKTRISKE JUSTERINGER

Henvisningerne er for højre kanal. (Henvisningerne i parantes er for venstre kanal).
Alle betjeninger gøres på Master Control Panelet.

5V Netdel

Tilslut DC voltmeter til 2P14-5.
Juster til 5,1V±0,1V ved at afbryde eller kortslutte 2J38 og 2J43.

Tomgangsstrøm

Tomgangsstrømmen justeres medens modtageren er kold og med neddrejet volumekontrol.
Højttalere må ikke være tilsluttet.
Tilslut DC voltmeter mellem 2TP200 og 2TP201 (2TP400 og 2TP401).
Juster 2R226 (2R426) til 11mV.

Brightness (Display)

Tilslut DC voltmeter over 9R15.
Tryk AUX.
Juster 9R12 til 3,75V.

Strømforsyning (MCP)

Kortslut 12TP3 til stel.
Tilslut et DC voltmeter til kollektor på 12TR37.
Juster 12R117 til 4,75V.

Volume sensor (MCP)

Tilslut DC voltmeter til ben 2 på 12IC2.
Når volume hjulet drejes skal spændingen svinge minimum mellem 2V og 2,8V.
Eventuel justering kan gøres ved at klippe eller lodde 12R23, 12R25 eller 12J57.

ELECTRICAL ADJUSTMENTS

Instructions apply to the right channel. (Instructions given in brackets apply to the left channel). All operations are carried out from the Master Control Panel.

5V Power-supply unit

Connect DC voltmeter to 2P14-5.
Adjust to 5.1V ± 0.1V by disconnecting or short-circuiting 2J38 and 2J43.

No-load current

Adjust the no-load current while the receiver is cold and with the volume control turned down.
Speakers must not be connected.
Connect DC voltmeter between 2TP200 and 2TP201 (2TP400 and 2TP401).
Adjust 2R226 (2R426) to 11mV.

Brightness (Display)

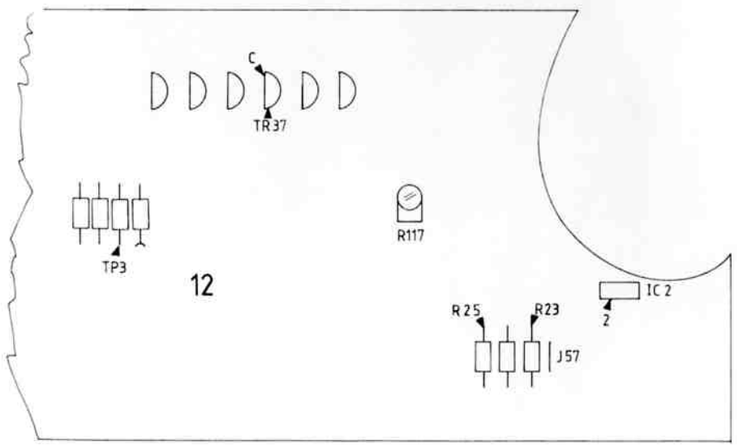
Connect DC voltmeter across 9R15.
Press AUX.
Adjust 9R12 to 3.75V.

Power supply (MCP)

Short-circuit 12TP3 with chassis.
Connect a DC voltmeter to the collector at 12TR37.
Adjust 12R117 to 4.75V.

Volume sensor (MCP)

Connect DC voltmeter to pin 2 at 12IC2.
When the volume wheel is turned, the voltage should oscillate between 2V and 2.8V as a minimum.
Any adjustments which might be necessary may be performed by cutting or soldering 12R23, 12R25 or 12J57.



HF JUSTERINGER

Ved visse justeringere skal AFT'en være in-aktiv. Dette ses ved at LOCKED indikaatoren skal være slukket (LOCKED off). Ved justeringer uden AFT skal signalgeneratoren først tilsluttes, når modtagerens frekvens er indstillet.

Alle betjeninger gøres på Master Control Panelet.

Udskiftning på FM tuner

Ved udskiftning af FM tuner er det kun nøvendigt at justere MF spolen 17L7.

MF

Tilslut et oscilloskop til 1IC2 ben 8.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet viser 87.4.
Tilslut en sweepgenerator til antenneindgangen og indstil den til 87,4 MHz.
Juster 17L7 til maksimum og symmetrisk MF kurve.

TUNER JUSTERINGER (KUN HVIS TUNEREN ER MISJUSTERET)

Oscillator

Der skal ikke tilføjes signal.
Tilslut DC voltmeter mellem 17TP11 og ben 8 på tuneren.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet viser 87,4.
Juster 17L8 til 0V.

HF 87,4 MHz

Tilslut et oscilloskop til 1IC2 ben 8.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet viser 87,4.
Tilslut en sweepgenerator til antenneindgangen og indstil den til 87,4 MHz.
Juster 17L2, 17L4, 17L5 og 17L7 til maksimum og symmetrisk MF kurve.

HF 108 MHz

Tryk GO TO.
Tryk 1080.
Når displayet slukker, tryk GO TO (LOCKED off).
Sweepgeneratorens frekvens ændres til 108 MHz.
Juster 17R32, 17R33 og 17R34 til maksimum.

Detektor

Tilslut oscilloskop til 1IC2 ben 8.
Tilslut DC voltmeter over 1R19 (1TP12 og 1TP13).
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet viser 87,4.
Tryk GO TO.
Tryk 940.
Når displayet slukker, tryk GO TO (LOCKED off).

RF ADJUSTMENTS

The AFT needs to be inactive for certain adjustments. This is shown by the LOCKED indicator being off (LOCKED off). When adjustments are made without the AFT, the signal generator should not be connected until the frequency of the receiver has been set.

All operations are carried out from the Master Control Panel.

Replacement of FM tuner

When replacing an FM tuner, it is only necessary to adjust the IF coil 17L7.

IF

Connect an oscilloscope to 1IC2 pin 8.
Press RADIO.
Press GO TO.
Press TURN until the display shows 87.4.
Connect a sweep generator to the aerial input and adjust it to 87.4 MHz.
Adjust 17L7 to maximum and symmetrical IF curve.

TUNER ADJUSTMENT (ONLY IF TUNER IS MALADJUSTED)

Oscillator

Do not input a signal.
Connect DC voltmeter between 17TP11 and the tuner's pin 8.
Press RADIO.
Press GO TO.
Press TURN until the display shows 87.4.
Adjust 17L8 to 0V.

RF 87.4 MHz

Connect an oscilloscope to 1IC2 pin 8.
Press RADIO.
Press GO TO.
Press TURN until the display shows 87.4.
Connect a sweep generator to the aerial input and adjust it to 87.4MHz.
Adjust 17L2, 17L4, 17L5 and 17L7 to maximum and symmetrical IF curve.

RF 108 MHz

Press GO TO.
Press 1080.
When the display goes off, press GO TO (LOCKED off).
Change sweep generator frequency to 108MHz.
Adjust 17R32, 17R33 and 17R34 to maximum.

Detector

Connect oscilloscope to 1IC2 pin 8.
Connect DC voltmeter across 1R19 (1TP12 and 1TP13).
Press RADIO.
Press GO TO.
Press TURN until the display shows 87.4.
Press GO TO.
Press 940.
When the display goes off, press GO TO (LOCKED off).

Tilslut en målesender til antenneindgangen og indstil den til 94 MHz.
Finindstil målesenderens frekvens til minimum 2. harmonisk forvrængning af signalet, som vist på kurven.

Connect a signal generator to the aerial input and adjust it to 94MHz.
Fine-tune the signal generator to at least second harmonic distortion of the signal as indicated on the curve.

RIGTIG CORRECT

FORKERT INCORRECT

Juster 1L2 så tæt mod 0V DC som muligt.
NB! Spændingen over 1R19 vil hele tiden variere p.g.a. korrektionspulser fra mikrocomputeren.
Efter detektor justering indstil FM DISPLAY INDIKERING se afsnit 8.

Adjust 1L2 as close to 0V DC as possible.
NOTE! The voltage across 1R19 will vary continuously because of correction pulses from the microcomputer.
After adjustment of the detector, adjust the FM DISPLAY INDICATION, see section 8.

FM LF output

Tilslut en målesender til antenneindgangen og indstil den til mono, 94MHz, 1mV EMF, Δ±75 kHz.
Tilslut LF voltmeter til 1TP14 (1TP15).
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet viser 87,5.
Tryk GO TO.
Tryk 940.
Juster 1R204 (1R404) til 1V RMS.
(Type 2333 justeres til 700mV RMS).

FM AF output

Connect a signal generator to the aerial input and adjust it to mono, 94MHz, 1mV EMF, Δ ± 75kHz.
Connect AF voltmeter to 1TP14 (1TP15).
Press RADIO.
Press GO TO.
Press TURN until the display shows 87.5.
Press GO TO.
Press 940.
Adjust 1R204 (1R404) to 1V R.M.S.(Adjust type 2333 to 700mV R.M.S.)

Kanalseparation

Tilslut en stereokoder (Encoder) til antenneindgangen og indstil den til 94 MHz og umoduleret signal i den ene kanal.
Tilslut LF voltmeter til 1TP14 eller 1TP15 (den umodulerede kanal).
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet vises 87,5.
Tryk GO TO.
Tryk 940.
Juster 1R51 til minimum signal i den umodulerede kanal.
Tilslut LF voltmeter til den anden kanal, og indstil stereokoderen til umoduleret signal i den samme kanal.
Kontroller, juster til symmetrisk kanalseparation.

Channel separation

Connect a stereo encoder to the aerial input and adjust it to 94MHz and unmodulated signal in one channel.
Connect AF voltmeter to 1TP14 or 1TP15 (the unmodulated channel).
Press RADIO.
Press GO TO.
Press TURN until the display shows 87.5.
Press GO TO.
Press 940.
Adjust 1R51 to minimum signal in the unmodulated channel.
Connect AF voltmeter to the other channel, and adjust the stereo encoder to unmodulated signal in the same channel.
Check, adjust to symmetrical channel separation.

FM stop niveau

Tilslut en målesender til antenneindgangen, og indstil den til 94MHz, 20µV EMF, Δ±75 kHz.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til displayet visere 87,5.
Tryk GO TO.
Tryk 940.
Drej 1R25 mod uret til stop.
Drej 1R25 med uret til LOCKED indikatoren netop tænder.

FM stop level

Connect a signal generator to the aerial input, and adjust it to 94MHz, 20µV EMF, Δ ±75kHz.
Press RADIO.
Press GO TO.
Press TURN until the display shows 87.5.
Press GO TO.
Press 940.
Turn 1R25 anticlockwise to stop.
Turn 1R25 clockwise until the LOCKED indicator just goes on.

AM

For at undgå indvirkning fra ACC'en, anbefales det at kortslutte 1C62.

AM

In order to avoid any kind of influence from the AGC, it is recommended that 1C62 be short-circuited.

LW oscillator

Der skal ikke tilføres signal.
Tilslut DC voltmeter til 1TP16.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Juster 1L9 til 2V±0,25V.
Tryk GO TO
Tryk 350.
Juster 1C56 til 25V±0,5V
Gentag evt. proceduren.

LW oscillator

Do not input a signal.
Connect DC voltmeter to 1TP16.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Adjust 1L9 to 2V ± 0.25V.
Press GO TO.
Press 350.
Adjust 1C56 to 25V ± 0.5V.
Repeat this procedure if necessary.

MW oscillator

Der skal ikke tilføres signal.
Tilslut DC voltmeter til 1TP16.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Tryk GO TO.
Tryk 520.
Juster 1L8 til 2V±0,25V.
Tryk GO TO.
Tryk 1610.
Juster 1C55 til 25V±0,5V.
Gentag evt. proceduren.

MW oscillator

Do not input a signal.
Connect DC voltmeter to 1TP16.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Press GO TO.
Press 520.
Adjust 1L8 to 2V ± 0.25V.
Press GO TO.
Press 1610.
Adjust 1C55 to 25V ± 0.5V.
Repeat this procedure if necessary.

AM MF

Tilslut en sweepgenerator til antenneindgangen, og indstil den til centerfrekvens 455 kHz Δ10 kHz.
Tilslut et oscilloskop til 1IC7 ben 13.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Tryk GO TO.
Tryk 1500.
Kortslut 1R98.
Juster 1L13 og 1L14 til maksimum og symmetrisk MF kurve.
Kortslutningen over 1R98 fjernes.

ANTENNEKREDSE
MW antennekredsene **skal** justeres først.

AM IF

Connect a sweep generator to the aerial input, and adjust it to centre frequency, 455 kHz Δ 10 kHz.
Connect an oscilloscope to 1IC7 pin 13.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Press GO TO.
Press 1500.
Short-circuit 1R98.
Adjust 1L13 and 1L14 to maximum and symmetrical IF curve.
Remove the short-circuit across 1R98.

AERIAL CIRCUITS
The MW aerial circuits must be adjusted first.

MW

Tilslut en målesender til antenneindgangen, og indstil den til 1500 kHz, 30% modulation.
Tilslut oscilloskop eller LF voltmeter til 1IC7 ben 13.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Tryk GO TO.
Tryk 1500.
Juster 1C83 til maksimum output.
Målesenderens frekvens ændres til 575 kHz.
Tryk GO TO.
Tryk 575 kHz.
Juster 1L12 til maksimum output.
Gentag evt. proceduren.

MW

Connect a signal generator to the aerial input, and adjust it to 1500 kHz, 30% modulation.
Connect oscilloscope or AF voltmeter to 1IC7 pin 13.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Press GO TO.
Press 1500.
Adjust 1C83 to maximum output.
Signal generator frequency is changed to 575 kHz.
Press GO TO.
Press 575 kHz.
Adjust 1L12 to maximum output.
Repeat this procedure if necessary.

LW

Målesenderens freksens ændres til 330 kHz.
Tryk GO TO.
Tryk 330.
Juster 1C81 til maksimum output.
Målesenderens frekvens ændres til 160 kHz.
Tryk GO TO.
Tryk 160.
Juster 1L11 til maksimum output.
Gentag evt. proceduren.

AM stop niveau

Kortslutninger over 1C62 fjernes.
Tilslut en målesender til antenneindgangen, og indstil den til 1MHz 30% modulation, og 30 µV.
Tilslut DC voltmeter til kollektor på 1TR5.
Tryk RADIO.
Tryk GO TO.
Tryk TURN til frekvensdisplayet viser 150.
Tryk GO TO.
Tryk 1000.
Juster 1R73 til 2,5 V.

LW

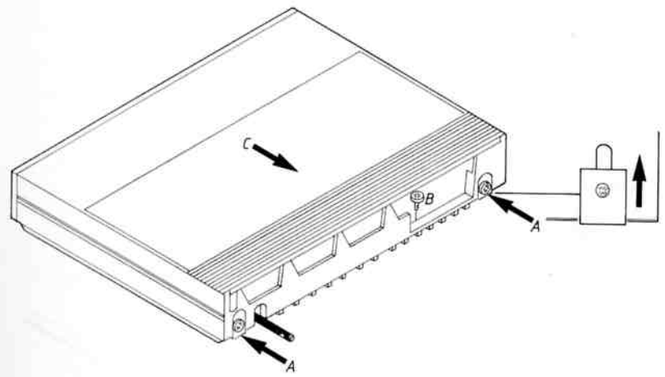
The signal generator frequency is changed to 330 kHz.
Press GO TO.
Press 330.
Adjust 1C81 to maximum output.
Change the signal generator frequency to 160 kHz.
Press GO TO.
Press 160.
Adjust 1L11 to maximum output.
Repeat this procedure if necessary.

AM stop level

Remove the short-circuit across 1C62.
Connect a signal generator to the aerial input, and adjust it to 1MHz 30% modulation, and 30µV.
Connect DC voltmeter to the collector at 1TR5.
Press RADIO.
Press GO TO.
Press TURN until the frequency display shows 150.
Press GO TO.
Press 1000.
Adjust 1R73 to 2.5V.

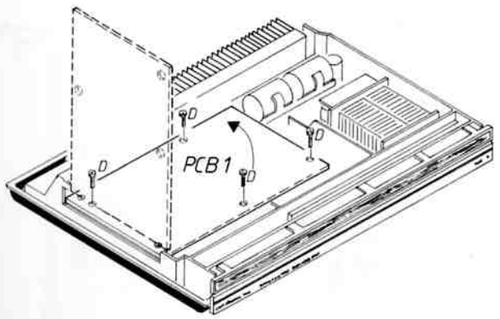
Adskillelse

Dismantling



Kabinet
- Løsn skruerne, skub op og stram.
- Løft kølegitteret og fjern skruen i stikmodulet.
- Pres kabinettet ca. 1 cm bagud og løft op.

Cabinet
- Loosen the screws, push up and tighten.
- Lift the heat dissipation grill and remove the screw from the socket module.
- Push the cabinet approx. 1 cm backwards and lift it out.



PCB 1
- Fjern skruerne D (4 stk.).
- Placer PCB 1 i servicestilling som vist.

PCB 1
- Remove the screws D (4 pcs.).
- Place PCB 1 in service position as shown.